

=> file reg; d stat que 13

FILE 'REGISTRY' ENTERED AT 14:48:40 ON 07 DEC 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 5 DEC 2004 HIGHEST RN 792236-36-3

DICTIONARY FILE UPDATES: 5 DEC 2004 HIGHEST RN 792236-36-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

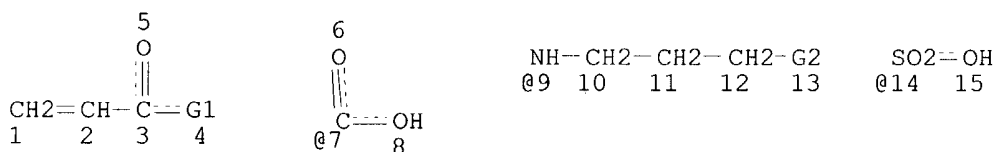
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

L1 STR



VAR G1=7/9

VAR G2=14/NH2

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L3 60 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 307184 ITERATIONS

60 ANSWERS

SEARCH TIME: 00.00.02

=> => d rn cn 13 1-60

L3 ANSWER 1 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 714975-85-6 REGISTRY

CN Acetic acid ethenyl ester, polymer with ethene and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monoammonium salt (9CI) (CA INDEX NAME)

L3 ANSWER 2 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 714975-84-5 REGISTRY  
CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monoammonium salt (9CI) (CA INDEX NAME)

L3 ANSWER 3 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 608537-31-1 REGISTRY  
CN 2-Propenamide, N-(3-aminopropyl)-, monohydrochloride, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -methoxypoly(oxy-1,2-ethanediyl) and 2-propenamide, graft (9CI) (CA INDEX NAME)

L3 ANSWER 4 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 471283-24-6 REGISTRY  
CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with 2-propenamide and sodium ethenesulfonate (9CI) (CA INDEX NAME)

L3 ANSWER 5 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 471283-23-5 REGISTRY  
CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with 2-propenamide (9CI) (CA INDEX NAME)

L3 ANSWER 6 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 471283-22-4 REGISTRY  
CN 2-Propenoic acid, sodium salt, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenamide (9CI) (CA INDEX NAME)

L3 ANSWER 7 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 342427-29-6 REGISTRY  
CN Benzenemethanaminium, N,N,N-trimethyl-, hydroxide, compd. with N-(3-aminopropyl)-2-propenamide monohydrochloride polymer with 2-propenoic acid (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 2-Propenamide, N-(3-aminopropyl)-, monohydrochloride, polymer with 2-propenoic acid, compd. with N,N,N-trimethylbenzenemethanaminium hydroxide (9CI)  
CN 2-Propenoic acid, polymer with N-(3-aminopropyl)-2-propenamide monohydrochloride, compd. with N,N,N-trimethylbenzenemethanaminium hydroxide (9CI)

L3 ANSWER 8 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 342427-28-5 REGISTRY  
CN 2-Propenoic acid, polymer with N-(3-aminopropyl)-2-propenamide monohydrochloride (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 2-Propenamide, N-(3-aminopropyl)-, monohydrochloride, polymer with 2-propenoic acid (9CI)

L3 ANSWER 9 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 331827-87-3 REGISTRY  
CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, compd. with N,N-dimethylmethanamine (1:1), polymer with 2-propenamide (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 2-Propenamide, polymer with N,N-dimethylmethanamine 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonate (9CI)  
CN Methanamine, N,N-dimethyl-, 3-[(1-oxo-2-propenyl)amino]-1-

propanesulfonate, polymer with 2-propenamide (9CI)

L3 ANSWER 10 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 331827-86-2 REGISTRY

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, compd. with  
N,N-dimethylmethanamine (1:1) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Methanamine, N,N-dimethyl-, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonate  
(9CI)

L3 ANSWER 11 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 266326-09-4 REGISTRY

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with hexyl 2-propenoate  
and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt  
(9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt,  
polymer with hexyl 2-propenoate and methyl 2-methyl-2-propenoate (9CI)

CN 2-Propenoic acid, hexyl ester, polymer with methyl 2-methyl-2-propenoate  
and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt  
(9CI)

OTHER NAMES:

CN Hexyl acrylate-methyl methacrylate-sodium acrylamidopropanesulfonate  
copolymer

L3 ANSWER 12 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 219613-65-7 REGISTRY

CN 2-Propenamide, N-(3-aminopropyl)-, monohydrochloride, homopolymer (9CI)  
(CA INDEX NAME)

L3 ANSWER 13 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 176648-60-5 REGISTRY

CN 2-Propenamide, N-(3-aminopropyl)-, polymer with ethenylbenzene (9CI) (CA  
INDEX NAME)

OTHER CA INDEX NAMES:

CN Benzene, ethenyl-, polymer with N-(3-aminopropyl)-2-propenamide (9CI)

L3 ANSWER 14 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 161284-24-8 REGISTRY

CN  $\beta$ -Alanine, N-(1-oxo-2-propenyl)-, polymer with N-(3-aminopropyl)-2-  
propenamide monohydrochloride and N-[2-(2-methoxyethoxy)ethyl]-2-methyl-2-  
propenamide (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Propenamide, N-(3-aminopropyl)-, monohydrochloride, polymer with  
N-[2-(2-methoxyethoxy)ethyl]-2-methyl-2-propenamide and  
N-(1-oxo-2-propenyl)- $\beta$ -alanine (9CI)

CN 2-Propenamide, N-[2-(2-methoxyethoxy)ethyl]-2-methyl-, polymer with  
N-(3-aminopropyl)-2-propenamide monohydrochloride and N-(1-oxo-2-propenyl)-  
 $\beta$ -alanine (9CI)

L3 ANSWER 15 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 161284-23-7 REGISTRY

CN 2-Propenamide, N-(3-aminopropyl)-, monohydrochloride, polymer with  
2-propenamide and N-[(tetrahydro-2-furanyl)methyl]-2-propenamide (9CI)  
(CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Propenamide, N-[(tetrahydro-2-furanyl)methyl]-, polymer with  
N-(3-aminopropyl)-2-propenamide monohydrochloride and 2-propenamide (9CI)

CN 2-Propenamide, polymer with N-(3-aminopropyl)-2-propenamide

monohydrochloride and N-[(tetrahydro-2-furanyl)methyl]-2-propenamide (9CI)

L3 ANSWER 16 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 161029-61-4 REGISTRY

CN 1-Propanesulfonic acid, 3-[(2-methyl-1-oxo-2-propenyl)amino]-, monopotassium salt, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monopotassium salt (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monopotassium salt, polymer with 3-[(2-methyl-1-oxo-2-propenyl)amino]-1-propanesulfonic acid monopotassium salt (9CI)

L3 ANSWER 17 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 160379-57-7 REGISTRY

CN 2-Propenoic acid, polymer with butyl 2-propenoate, ethyl 2-propenoate and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with butyl 2-propenoate, ethyl 2-propenoate and 2-propenoic acid (9CI)

CN 2-Propenoic acid, butyl ester, polymer with ethyl 2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid (9CI)

CN 2-Propenoic acid, ethyl ester, polymer with butyl 2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid (9CI)

L3 ANSWER 18 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 150567-68-3 REGISTRY

CN 2-Propenamide, N-(3-aminopropyl)-, polymer with 1-ethenyl-2-pyrrolidinone (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Pyrrolidinone, 1-ethenyl-, polymer with N-(3-aminopropyl)-2-propenamide (9CI)

L3 ANSWER 19 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 148053-39-8 REGISTRY

CN 2-Propenoic acid, butyl ester, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with butyl 2-propenoate (9CI)

L3 ANSWER 20 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 145273-29-6 REGISTRY

CN 2-Propenoic acid, lithium salt, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with lithium 2-propenoate (9CI)

L3 ANSWER 21 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 143457-58-3 REGISTRY

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monopotassium salt (9CI) (CA INDEX NAME)

L3 ANSWER 22 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 137134-19-1 REGISTRY

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-

1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

- CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, butyl ester, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, monoester with 1,2-propanediol, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 1,2-propanediol mono-2-propenoate (9CI)
- CN Benzene, ethenyl-, polymer with butyl 2-methyl-2-propenoate, butyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)

L3 ANSWER 23 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 133245-68-8 REGISTRY

- CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with  $\alpha$ -[[[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-3-hydroxyphenyl]amino]carbonyl]- $\omega$ -[2-[(2-methyl-1-oxo-2-propenyl)amino]ethoxy]poly[oxy(methyl-1,2-ethanediyl)] and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

- CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with  $\alpha$ -[[[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-3-hydroxyphenyl]amino]carbonyl]- $\omega$ -[2-[(2-methyl-1-oxo-2-propenyl)amino]ethoxy]poly[oxy(methyl-1,2-ethanediyl)] and oxiranylmethyl 2-methyl-2-propenoate (9CI)
- CN Poly[oxy(methyl-1,2-ethanediyl)],  $\alpha$ -[[[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-3-hydroxyphenyl]amino]carbonyl]- $\omega$ -[2-[(2-methyl-1-oxo-2-propenyl)amino]ethoxy]-, polymer with oxiranylmethyl 2-methyl-2-propenoate and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt (9CI)

L3 ANSWER 24 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 133245-67-7 REGISTRY

- CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with  $\alpha$ -[[[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-3-hydroxyphenyl]amino]carbonyl]- $\omega$ -[2-[(2-methyl-1-oxo-2-propenyl)amino]ethoxy]poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

- CN Poly[oxy(methyl-1,2-ethanediyl)],  $\alpha$ -[[[4-[(2,2,3,3,4,4,4-heptafluoro-1-oxobutyl)amino]-3-hydroxyphenyl]amino]carbonyl]- $\omega$ -[2-[(2-methyl-1-oxo-2-propenyl)amino]ethoxy]-, polymer with 3-[(1-oxo-2-propenyl)amino]-1-

propanesulfonic acid monosodium salt (9CI)

L3 ANSWER 25 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 127584-40-1 REGISTRY

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with N-[4-[[[6-methoxy-2-[2-[(methylsulfonyl)amino]ethyl]-1H-pyrazolo[1,5-b][1,2,4]triazol-7-yl]thio]methyl]phenyl]-2-propenamide and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with N-[4-[[[6-methoxy-2-[2-[(methylsulfonyl)amino]ethyl]-1H-pyrazolo[1,5-b][1,2,4]triazol-7-yl]thio]methyl]phenyl]-2-propenamide and oxiranylmethyl 2-methyl-2-propenoate (9CI)

CN 1H-Pyrazolo[1,5-b][1,2,4]triazole, 2-propenamide deriv.

CN 2-Propenamide, N-[4-[[[6-methoxy-2-[2-[(methylsulfonyl)amino]ethyl]-1H-pyrazolo[1,5-b][1,2,4]triazol-7-yl]thio]methyl]phenyl]-, polymer with oxiranylmethyl 2-methyl-2-propenoate and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt (9CI)

L3 ANSWER 26 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 124882-87-7 REGISTRY

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, nickel(2+) salt (2:1) (9CI) (CA INDEX NAME)

L3 ANSWER 27 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 120641-64-7 REGISTRY

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with N,N'-methylenebis[2-propenamide], 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenamide (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with N,N'-methylenebis[2-propenamide], 2-propenamide and N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI)

CN 2-Propenamide, N,N'-methylenebis-, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, 2-propenamide and N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI)

CN 2-Propenamide, polymer with N,N'-methylenebis[2-propenamide], 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI)

L3 ANSWER 28 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 120619-59-2 REGISTRY

CN Ethanaminium, N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]-, chloride, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl), 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenamide (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl), 2-propenamide and N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium chloride (9CI)

CN 2-Propenamide, polymer with  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -

- [(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl),  
3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and  
N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium chloride  
(9CI)
- CN Poly(oxy-1,2-ethanediyl),  $\alpha$ -(2-methyl-1-oxo-2-propenyl)- $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, 2-propenamide and  
N,N,N-trimethyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethanaminium chloride  
(9CI)
- L3 ANSWER 29 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 107719-47-1 REGISTRY  
CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with  
ethenol, block (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Ethenol, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid,  
block (9CI)
- L3 ANSWER 30 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 104047-96-3 REGISTRY  
CN 1-Propanesulfonic acid, methyl-3-[(1-oxo-2-propenyl)amino]-, homopolymer  
(9CI) (CA INDEX NAME)
- L3 ANSWER 31 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 104047-95-2 REGISTRY  
CN 1-Propanesulfonic acid, methyl-3-[(1-oxo-2-propenyl)amino]- (9CI) (CA  
INDEX NAME)
- L3 ANSWER 32 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 103966-70-7 REGISTRY  
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with  
1,1-dichloroethene, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenamide  
(9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt,  
polymer with 1,1-dichloroethene, 2-hydroxyethyl 2-methyl-2-propenoate,  
methyl 2-methyl-2-propenoate and 2-propenamide (9CI)  
CN 2-Propenamide, polymer with 1,1-dichloroethene, 2-hydroxyethyl  
2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and  
3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt (9CI)  
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
1,1-dichloroethene, 2-hydroxyethyl 2-methyl-2-propenoate,  
3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and  
2-propenamide (9CI)  
CN Ethene, 1,1-dichloro-, polymer with 2-hydroxyethyl 2-methyl-2-propenoate,  
methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenamide (9CI)  
OTHER NAMES:  
CN Acrylamide-2-hydroxyethylmethacrylate-methylmethacrylate-sodium  
acrylamidopropanesulfonate-vinylidene chloride copolymer
- L3 ANSWER 33 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 103915-90-8 REGISTRY  
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with  
1,1-dichloroethene, 2-hydroxyethyl 2-propenoate, 2-methyl-2-propenamide,  
3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid  
(9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:

- CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with 1,1-dichloroethene, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide and 2-propenoic acid (9CI)
- CN 2-Propenamide, 2-methyl-, polymer with 1,1-dichloroethene, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, 2-hydroxyethyl ester, polymer with 1,1-dichloroethene, methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, polymer with 1,1-dichloroethene, 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI)
- CN Ethene, 1,1-dichloro-, polymer with 2-hydroxyethyl 2-propenoate, methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid (9CI)

## OTHER NAMES:

- CN Acrylamidopropanesulfonic acid-acrylic acid-2-hydroxyethylacrylate-methacrylamide-methylmethacrylate-vinylidene chloride copolymer

L3 ANSWER 34 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 103831-43-2 REGISTRY

- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,1-dichloroethene, 2-methyl-2-propenamide, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

- CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with 1,1-dichloroethene, methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenamide, 2-methyl-, polymer with 1,1-dichloroethene, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, monoester with 1,2-propanediol, polymer with 1,1-dichloroethene, methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, polymer with 1,1-dichloroethene, methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 1,2-propanediol mono-2-propenoate (9CI)
- CN Ethene, 1,1-dichloro-, polymer with methyl 2-methyl-2-propenoate, 2-methyl-2-propenamide, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)

## OTHER NAMES:

- CN Acrylic acid-hydroxypropylacrylate-methacrylamide-methyl methacrylate-sodium acrylamidopropanesulfonate-vinylidene chloride copolymer

L3 ANSWER 35 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 103831-42-1 REGISTRY

- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 1,1-dichloroethene, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, 1,2-propanediol mono(2-methyl-2-propenoate) and 2-propenamide (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

- CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt,



- polymer with 1,1-dichloroethene, methyl 2-methyl-2-propenoate, 1,2-propanediol mono(2-methyl-2-propenoate) and 2-propenamide (9CI)
- CN 2-Propenamide, polymer with 1,1-dichloroethene, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 1,2-propanediol mono(2-methyl-2-propenoate) (9CI)
- CN 2-Propenoic acid, 2-methyl-, monoester with 1,2-propanediol, polymer with 1,1-dichloroethene, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-propenamide (9CI)
- CN Ethene, 1,1-dichloro-, polymer with methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, 1,2-propanediol mono(2-methyl-2-propenoate) and 2-propenamide (9CI)
- OTHER NAMES:
- CN Acrylamide-hydroxypropyl methacrylate-methyl methacrylate-sodium acrylamidopropanesulfonate-vinylidene chloride copolymer
- L3 ANSWER 36 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN
- RN 102304-26-7 REGISTRY
- CN 2-Propenamide, N-(3-aminopropyl)-, homopolymer (9CI) (CA INDEX NAME)
- L3 ANSWER 37 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN
- RN 101647-77-2 REGISTRY
- CN 3-Butenoic acid, 2-oxo-, polymer with N-[4-[[[3-[[5-(acetylamino)-2-chlorophenyl]amino]-4,5-dihydro-5-oxo-1-(2,4,6-trichlorophenyl)-1H-pyrazol-4-yl]oxy]methyl]phenyl]-2-methyl-2-propenamide and butyl 2-propenoate (9CI) (CA INDEX NAME)
- OTHER CA INDEX NAMES:
- CN 2-Propenamide, N-[4-[[[3-[[5-(acetylamino)-2-chlorophenyl]amino]-4,5-dihydro-5-oxo-1-(2,4,6-trichlorophenyl)-1H-pyrazol-4-yl]oxy]methyl]phenyl]-2-methyl-, polymer with butyl 2-propenoate and 2-oxo-3-butenic acid (9CI)
- CN 2-Propenoic acid, butyl ester, polymer with N-[4-[[[3-[[5-(acetylamino)-2-chlorophenyl]amino]-4,5-dihydro-5-oxo-1-(2,4,6-trichlorophenyl)-1H-pyrazol-4-yl]oxy]methyl]phenyl]-2-methyl-2-propenamide and 2-oxo-3-butenic acid (9CI)
- L3 ANSWER 38 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN
- RN 94644-13-0 REGISTRY
- CN 2-Propenoic acid, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)
- OTHER CA INDEX NAMES:
- CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with 2-propenoic acid (9CI)
- L3 ANSWER 39 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN
- RN 87940-14-5 REGISTRY
- CN 1-Aziridinepropanoic acid, 2-[[3-(1-aziridinyl)-1-oxopropoxy]methyl]-2-ethyl-1,3-propanediyl ester, polymer with  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)
- OTHER CA INDEX NAMES:
- CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with 2-[[3-(1-aziridinyl)-1-oxopropoxy]methyl]-2-ethyl-1,3-propanediyl bis(1-aziridinepropanoate) and  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] (9CI)
- CN Poly(oxy-1,2-ethanediyl),  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-[[3-(1-aziridinyl)-1-oxopropoxy]methyl]-2-ethyl-1,3-propanediyl

bis(1-aziridinepropanoate) and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI)

L3 ANSWER 40 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 87940-13-4 REGISTRY

CN 2-Propenoic acid, 2-methyl-, 2-(1-aziridinyl)ethyl ester, polymer with  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with 2-(1-aziridinyl)ethyl 2-methyl-2-propenoate and  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)]. (9CI)

CN Poly(oxy-1,2-ethanediyl),  $\alpha,\alpha'$ -[(1-methylethylidene)di-4,1-phenylene]bis[ $\omega$ -[(2-methyl-1-oxo-2-propenyl)oxy]-, polymer with 2-(1-aziridinyl)ethyl 2-methyl-2-propenoate and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI)

L3 ANSWER 41 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 82752-13-4 REGISTRY

CN 2-Propenamide, N-(3-aminopropyl)-, monohydrochloride, polymer with 2-propenamide (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Propenamide, polymer with N-(3-aminopropyl)-2-propenamide monohydrochloride (9CI)

L3 ANSWER 42 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 82752-12-3 REGISTRY

CN 2-Propenamide, N-(3-aminopropyl)-, monohydrochloride (9CI) (CA INDEX NAME)

L3 ANSWER 43 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 81666-09-3 REGISTRY

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with 2-propenamide (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 2-Propenamide, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI)

L3 ANSWER 44 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 78166-46-8 REGISTRY

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, homopolymer, sodium salt (9CI) (CA INDEX NAME)

L3 ANSWER 45 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 78166-45-7 REGISTRY

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, homopolymer (9CI) (CA INDEX NAME)

L3 ANSWER 46 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 72805-87-9 REGISTRY

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with butyl

- 2-methyl-2-propenoate, ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethylhexyl 2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, monoester with 1,2-propanediol, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, polymer with butyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 1,2-propanediol mono-2-propenoate (9CI)
- CN Benzene, ethenyl-, polymer with butyl 2-methyl-2-propenoate, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- L3 ANSWER 47 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN
- RN 72805-85-7 REGISTRY
- CN 2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)
- OTHER CA INDEX NAMES:
- CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with ethenylbenzene, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, monoester with 1,2-propanediol, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, polymer with ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 1,2-propanediol mono-2-propenoate (9CI)
- CN Benzene, ethenyl-, polymer with 2-ethylhexyl 2-propenoate, methyl

2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate,  
3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol  
mono-2-propenoate and 2-propenoic acid (9CI)

L3 ANSWER 48 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 72805-84-6 REGISTRY

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate,  
ethenylbenzene, methyl 2-methyl-2-propenoate, octadecyl  
2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid,  
1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI) (CA INDEX  
NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with butyl  
2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene, methyl  
2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 1,2-propanediol  
mono-2-propenoate and 2-propenoic acid (9CI)

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl  
2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene, octadecyl  
2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid,  
1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)

CN 2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with butyl  
2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene, methyl  
2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid,  
1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)

CN 2-Propenoic acid, butyl ester, polymer with butyl 2-methyl-2-propenoate,  
ethenylbenzene, methyl 2-methyl-2-propenoate, octadecyl  
2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid,  
1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)

CN 2-Propenoic acid, monoester with 1,2-propanediol, polymer with butyl  
2-methyl-2-propenoate, butyl 2-propenoate, ethenylbenzene, methyl  
2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate,  
3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid  
(9CI)

CN 2-Propenoic acid, polymer with butyl 2-methyl-2-propenoate, butyl  
2-propenoate, ethenylbenzene, methyl 2-methyl-2-propenoate, octadecyl  
2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid  
and 1,2-propanediol mono-2-propenoate (9CI)

CN Benzene, ethenyl-, polymer with butyl 2-methyl-2-propenoate, butyl  
2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-  
propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid,  
1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)

L3 ANSWER 49 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 72805-83-5 REGISTRY

CN Butanedioic acid, methylene-, dibutyl ester, polymer with ethenylbenzene,  
2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl  
2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid,  
1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI) (CA INDEX  
NAME)

OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with dibutyl  
methylenebutanedioate, ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl  
2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 1,2-propanediol  
mono-2-propenoate and 2-propenoic acid (9CI)

CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with dibutyl  
methylenebutanedioate, ethenylbenzene, methyl 2-methyl-2-propenoate,  
octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-  
propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic  
acid (9CI)

- CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with dibutyl methylenebutanedioate, ethenylbenzene, 2-ethylhexyl 2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with dibutyl methylenebutanedioate, ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, monoester with 1,2-propanediol, polymer with dibutyl methylenebutanedioate, ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 2-propenoic acid (9CI)
- CN 2-Propenoic acid, polymer with dibutyl methylenebutanedioate, ethenylbenzene, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid and 1,2-propanediol mono-2-propenoate (9CI)
- CN Benzene, ethenyl-, polymer with dibutyl methylenebutanedioate, 2-ethylhexyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid, 1,2-propanediol mono-2-propenoate and 2-propenoic acid (9CI)
- L3 ANSWER 50 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 71297-38-6 REGISTRY  
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with 1,3-butadiene, ethenylbenzene and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)
- OTHER CA INDEX NAMES:
- CN 1,3-Butadiene, polymer with 2-(dimethylamino)ethyl 2-methyl-2-propenoate, ethenylbenzene and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI)
- CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with 1,3-butadiene, 2-(dimethylamino)ethyl 2-methyl-2-propenoate and ethenylbenzene (9CI)
- CN Benzene, ethenyl-, polymer with 1,3-butadiene, 2-(dimethylamino)ethyl 2-methyl-2-propenoate and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI)
- L3 ANSWER 51 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 70502-44-2 REGISTRY  
CN Butanoic acid, 3-oxo-, 2-[(1-oxo-2-propenyl)oxy]ethyl ester, polymer with butyl 2-propenoate and 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt (9CI) (CA INDEX NAME)
- OTHER CA INDEX NAMES:
- CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt, polymer with butyl 2-propenoate and 2-[(1-oxo-2-propenyl)oxy]ethyl 3-oxobutanoate (9CI)
- CN 2-Propenoic acid, butyl ester, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt and 2-[(1-oxo-2-propenyl)oxy]ethyl 3-oxobutanoate (9CI)
- L3 ANSWER 52 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 70502-43-1 REGISTRY  
CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, monosodium salt (9CI) (CA INDEX NAME)
- L3 ANSWER 53 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 61228-52-2 REGISTRY

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with diethenylbenzene (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

CN Benzene, diethenyl-, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI)

## OTHER NAMES:

CN Acryloylaminopropanesulfonic acid-divinylbenzene copolymer

L3 ANSWER 54 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 61181-27-9 REGISTRY

CN 2-Propenoic acid, 2-methyl-, oxybis(2,1-ethanediylloxy-2,1-ethanediyl) ester, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with oxybis(2,1-ethanediylloxy-2,1-ethanediyl) bis(2-methyl-2-propenoate) (9CI)

## OTHER NAMES:

CN Acryloylaminopropanesulfonic acid-tetraethylene glycol dimethacrylate copolymer

L3 ANSWER 55 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 56842-76-3 REGISTRY

CN 3-Butenoic acid, 2-oxo- (9CI) (CA INDEX NAME)

## OTHER NAMES:

CN 2-keto-3-Butenoic acid

CN 2-Oxo-3-butenic acid

L3 ANSWER 56 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 55216-59-6 REGISTRY

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]-, polymer with 2-propenenitrile (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

CN 2-Propenenitrile, polymer with 3-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid (9CI)

## OTHER NAMES:

CN Acrylonitrile-sulfopropylacrylamide polymer

L3 ANSWER 57 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 55216-58-5 REGISTRY

CN 1-Propanesulfonic acid, 3-[(1-oxo-2-propenyl)amino]- (9CI) (CA INDEX NAME)

L3 ANSWER 58 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 28081-27-8 REGISTRY

CN 3-Butenoic-4-14C acid, 2-oxo- (8CI) (CA INDEX NAME)

L3 ANSWER 59 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 21381-80-6 REGISTRY

CN Acrylamide, N-(3-aminopropyl)-, picrate (8CI) (CA INDEX NAME)

L3 ANSWER 60 OF 60 REGISTRY COPYRIGHT 2004 ACS on STN

RN 21381-79-3 REGISTRY

CN 2-Propenamide, N-(3-aminopropyl)- (9CI) (CA INDEX NAME)

## OTHER CA INDEX NAMES:

CN Acrylamide, N-(3-aminopropyl)- (8CI)

=> file caplus; d que nos 16; d que nos 17  
FILE 'CAPLUS' ENTERED AT 14:51:46 ON 07 DEC 2004  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 7 Dec 2004 VOL 141 ISS 24  
FILE LAST UPDATED: 6 Dec 2004 (20041206/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

L1 STR  
L3 60 SEA FILE=REGISTRY SSS FUL L1  
L4 9692 SEA FILE=CAPLUS ABB=ON PLU=ON ION EXCHANGE+PFT/CT  
L6 0 SEA FILE=CAPLUS ABB=ON PLU=ON L3 AND L4

L1 STR  
L3 60 SEA FILE=REGISTRY SSS FUL L1  
L5 225192 SEA FILE=CAPLUS ABB=ON PLU=ON (ION OR CATION OR ANION) (W)  
EXCHANGE?  
L7 2 SEA FILE=CAPLUS ABB=ON PLU=ON L3 AND L5

=> d ibib ed ab 17 1-2

L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1999:78705 CAPLUS  
DOCUMENT NUMBER: 130:156929  
TITLE: Corrosion prevention method of metals in water system  
INVENTOR(S): Otaka, Hideo; Fujita, Kazuhisa  
PATENT ASSIGNEE(S): Kurita Water Industries, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11029885	A2	19990202	JP 1997-185024	19970710
PRIORITY APPLN. INFO.:			JP 1997-185024	19970710
ED Entered STN:		05 Feb 1999		

AB The title method consists of (A) removal of corrosive ions from water for the system by using **anion exchangers**, (B) addition of  $\geq 0.5$  mg/L (as PO<sub>4</sub>) P compds. to the water, and optionally (C) addition of polymers for suppressing formation of P scales. The method prevents metal corrosion in water system by using only small amount of P compds.

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1975:172439 CAPLUS

DOCUMENT NUMBER: 82:172439

TITLE: **Ion-exchangeable** acrylonitrile polymers

INVENTOR(S): Tanaka, Hiroyoshi; Ninakuchi, Hideharu; Fujii, Shigeru

PATENT ASSIGNEE(S): Toray Industries, Inc.

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 50000093	A2	19750106	JP 1973-49521	19730428
PRIORITY APPLN. INFO.:			JP 1973-49521	19730428

ED Entered STN: 12 May 1984

AB Acrylonitrile (>75 mole%) and >3 mole% sulfoalkylacrylamides, sulfoalkylmethacrylamides, and(or) their salts were solution-polymerized in Me<sub>2</sub>SO. Thus, acrylonitrile containing 4 mole% sulfopropylacrylamide was solution-polymerized for 24 hr at 50° and 23% monomer concentration in Me<sub>2</sub>SO containing 0.004 mole/kg azobisisobutyronitrile to give 91.3% polymer [ **55216-59-6**] solution (432 P viscosity at 45°), which was extruded at 25° in a 15% aqueous Me<sub>2</sub>SO solution and stretched 400% in H<sub>2</sub>O at 100° to give fibers with 20.3 mg/g Fe+3 adsorption, as compared with 19.3 mg/g for Amberlite IR-120B.

=> => file home

FILE 'HOME' ENTERED AT 14:58:00 ON 07 DEC 2004

=>



Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1641ayl

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* Welcome to STN International \* \* \* \* \*

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 SEP 01 INPADOC: New family current-awareness alert (SDI) available  
NEWS 4 SEP 01 New pricing for the Save Answers for SciFinder Wizard within  
STN Express with Discover!  
NEWS 5 SEP 01 New display format, HITSTR, available in WPIDS/WPINDEX/WPIX  
NEWS 6 SEP 27 STANDARDS will no longer be available on STN  
NEWS 7 SEP 27 SWETSCAN will no longer be available on STN  
NEWS 8 OCT 28 KOREAPAT now available on STN  
NEWS 9 NOV 18 Current-awareness alerts, saved answer sets, and current  
search transcripts to be affected by CERAB, COMPUAB, ELCOM,  
and SOLIDSTATE reloads  
NEWS 10 NOV 30 PHAR reloaded with additional data  
NEWS 11 DEC 01 LISA now available on STN  
  
NEWS EXPRESS OCTOBER 29 CURRENT WINDOWS VERSION IS V7.01A, CURRENT  
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),  
AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that  
specific topic.

All use of STN is subject to the provisions of the STN Customer  
agreement. Please note that this agreement limits use to scientific  
research. Use for software development or design or implementation  
of commercial gateways or other similar uses is prohibited and may  
result in loss of user privileges and other penalties.

\* \* \* \* \* STN Columbus \* \* \* \* \*

FILE 'HOME' ENTERED AT 17:42:55 ON 07 DEC 2004

=> file .bio

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 17:43:05 ON 07 DEC 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'BIOSIS' ENTERED AT 17:43:05 ON 07 DEC 2004  
Copyright (c) 2004 The Thomson Corporation.

FILE 'MEDLINE' ENTERED AT 17:43:05 ON 07 DEC 2004

FILE 'EMBASE' ENTERED AT 17:43:05 ON 07 DEC 2004  
COPYRIGHT (C) 2004 Elsevier Inc. All rights reserved.

```
=> s polyacrylamide or dimethylacrylamide
L1      369119 POLYACRYLAMIDE OR DIMETHYLACRYLAMIDE

=> 1 and modified or functionalized or (functional (1w) group)
L2      515735 1 AND MODIFIED OR FUNCTIONALIZED OR (FUNCTIONAL (1W) GROUP)

=> 2 and (anion or anionic or cation or cationic)
L3      493076 2 AND (ANION OR ANIONIC OR CATION OR CATIONIC)

=> 1 and (modified or functionalized or (functional (1w) group))
L4      444618 1 AND (MODIFIED OR FUNCTIONALIZED OR (FUNCTIONAL (1W) GROUP))

=> L1 and (modified or functionalized or (functional (1w) group))
L5      13133 L1 AND (MODIFIED OR FUNCTIONALIZED OR (FUNCTIONAL (1W) GROUP))

=> 5 and (anion or anionic or cation or cationic)
L6      321260 5 AND (ANION OR ANIONIC OR CATION OR CATIONIC)

=> L5 and (anion or anionic or cation or cationic)
L7      935 L5 AND (ANION OR ANIONIC OR CATION OR CATIONIC)

=> L7 and ((anion or anionic or cation or cationic) (w) (modified or
functionalized or (functional (1w) group)))
L8      55 L7 AND ((ANION OR ANIONIC OR CATION OR CATIONIC) (W) (MODIFIED
OR FUNCTIONALIZED OR (FUNCTIONAL (1W) GROUP)))

=> (ion (1w) exchange) or (ion-exchange)
L9      225635 (ION (1W) EXCHANGE) OR (ION-EXCHANGE)

=> L9 and ((anion or anionic or cation or cationic) (w) (modified or
functionalized or (functional (1w) group)))
L10     24 L9 AND ((ANION OR ANIONIC OR CATION OR CATIONIC) (W) (MODIFIED
OR FUNCTIONALIZED OR (FUNCTIONAL (1W) GROUP)))

=> d ibib abs 1-24
```

L10 ANSWER 1 OF 24 CAPLUS COPYRIGHT 2004 ACS on STM  
ACCESSION NUMBER: 2004:995243 CAPLUS  
TITLE: Method for introducing ion exchange  
functional group  
INVENTOR(S): Kang, Dal Seon; Lee, Ho Jae; Song, Hae Yeong; Woo,  
Yeong Guk  
PATENT ASSIGNEE(S): Joong Ang University, S. Korea  
SOURCE: Repub. Korean Kongkae Taeho Kongbo, No pp. given  
CODEN: KRXXA7  
DOCUMENT TYPE: Patent  
LANGUAGE: Korean  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
KR 2003072652	A	20030919	KR 2002-11779	20020306
PRIORITY APPLN. INFO.:			KR 2002-11779	20020306

AB PURPOSE: Provided is a method for producing anion exchange column or cation exchange column by directly introducing a suitable silane compound having anionic or **cationic functional group** into com. available various purified silica. CONSTITUTION: The method comprises directly bonding at least one silane compound selected from the group consisting of N-trimethoxypropyl-N,N,N-trimethylammonium chloride, N-(trimethoxysilyl ethyl)benzyl-N,N,N-trimethylammonium chloride, octadecyldimethyl(3-trimethoxysilyl propyl)ammonium chloride, and N,N-didecyl-N-methyl-N-methyl-N-(3-trimethoxysilyl propyl)ammonium chloride which have anion exchange functional group, to a purified silica gel, so as to form a filler for anion chromatog.

L10 ANSWER 2 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2004:740385 CAPLUS  
 DOCUMENT NUMBER: 141:261449  
 TITLE: Lamellar organosilica nanocomposite and production process  
 INVENTOR(S): Imai, Yusuke; Yao, Jian; Koga, Toshiaki; Inukai, Yoshinari; Abe, Eiichi; Tateyama, Hiroshi  
 PATENT ASSIGNEE(S): National Institute of Advanced Industrial Science and Technology, Japan  
 SOURCE: PCT Int. Appl., 32 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004076532	A1	20040910	WO 2004-JP2415	20040227
W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI, NI, NO RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG JP 2004263066 A2 20040924 JP 2003-54528 20030228 PRIORITY APPLN. INFO.: JP 2003-54528 A 20030228				

AB An aqueous solution containing an alkoxysilane having an organic **cationic functional group** (e.g., 3-aminopropyltrimethoxysilane) and an anionic surfactant (e.g., Na dodecylsulfate) is subjected to a sol-gel reaction for alkoxysilane. Thus, a lamellar organosilica nanocomposite can be produced.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L10 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:421947 CAPLUS

DOCUMENT NUMBER: 141:145277

TITLE: Removal of polar natural organic matter (NOM) with a magnetically impregnated **ion exchange** (MIEX) media

AUTHOR(S): Lee, NoHwa; Sinha, Shahnawaz; Amy, Gary; Bourke, Michael

CORPORATE SOURCE: University of Colorado at Boulder, USA

SOURCE: Proceedings - Annual Conference, American Water Works Association (2003) 865-875  
CODEN: PWACDO; ISSN: 0360-814X

PUBLISHER: American Water Works Association

DOCUMENT TYPE: Journal; (computer optical disk)

LANGUAGE: English

AB Natural organic matter (NOM) forms undesirable disinfection byproducts (DBPs). Since EPA promulgated the Stage 1 disinfection byproducts rule (Stage 1 DBPR) in 1998, the removal of NOM, as a DBP precursor, was regulated by enhanced coagulation. The MIEX DOC resin target the removal of anionic constituents of NOM by exchanging the sites between **anionic functional groups** (e.g., carboxylic acids) and chloride ion (Cl<sup>-</sup>). This research has focused on characterization of MIEX adsorption of NOM isolates and bulk NOM from natural waters. An enhanced coagulation matrix (source waters with varying TOC and alkalinity) was used as a framework for identifying and selecting natural waters from around the U.S. In all cases, based on XAD 8/4 resin fractionation of raw and MIEX treated waters, effective

removals

of hydrophobic, transphilic, and hydrophilic NOM acids were observed. The removals of transphilic and hydrophilic (low mol. weight) acids are noteworthy, given the ineffectiveness of coagulation in removing these polar NOM fractions.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L10 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:820823 CAPLUS

DOCUMENT NUMBER: 140:344792

TITLE: Azulene incorporation and release by hydrogel containing methacrylamide propyltrimethylammonium chloride, and its application to soft contact lens

AUTHOR(S): Uchida, Rei; Sato, Takao; Tanigawa, Haruyasu; Uno, Kenji

CORPORATE SOURCE: Research and Development Department, SEED Co., Ltd., Saitama, Okegawa, 363-0001, Japan

SOURCE: Journal of Controlled Release (2003), 92(3), 259-264  
CODEN: JCREEC; ISSN: 0168-3659

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We have developed the epoch-making contact lens that is equipped with drug

delivery system. The hydrogels contain **cationic functional group** in its side chain were prepared with 2-hydroxyethyl methacrylate (HEMA) and methacrylamide propyltrimethylammonium chloride (MAPTAC). The obtained hydrogel is capable to store the anionic drug such as azulene based on **ion-exchange** reaction. The incorporated anionic drug would be

released in physiol. condition. The size change of the hydrogel may occur before and after drug release, but we have discovered that the addition of anionic monomer such as methacrylic acid (MAA) and 2-methacryloxyethyl acid phosphate (MOEP) to the above-mentioned composition is effective to prevent the size change, indicating that this hydrogel has the possibility

to be applied as a significant drug delivery system device.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE  
FORMAT

L10 ANSWER 5 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:588682 CAPLUS

DOCUMENT NUMBER: 139:344804

TITLE: Ion exclusion chromatography. Retention mechanism and practical applications

AUTHOR(S): Glod, Bronislaw K.

CORPORATE SOURCE: Inst.-Centrum Med. Dosw. i Klin., PAN, Warsaw, 02-106,

Pol.

SOURCE: Wiadomosci Chemiczne (2003), 57(1-2), 115-133

CODEN: WICHAP; ISSN: 0043-5104

PUBLISHER: Wydawnictwo Uniwersytetu Wroclawskiego Sp. z o.o.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: Polish

AB A review. Ion exclusion chromatog. (IEC) is applied mostly to sep. ionic compds. from the nonionic ones. Wheaton and Bauman were 1st to describe this technique in 1953. At present .apprx.10% of all ion chromatog. detns. were performed using IEC and this is approx. the number of detns. using the more common technique of ion pair (ion interaction) chromatog. In the recent years the number of IEC detns. displays a strong tendency to

increase. The characteristic feature of IEC technique is the elec. charge

sign of dissociated **ion-exchange** resin functional groups that is the same as the elec. charge sign of the analyzed ionic compound. Thus samples of neg. charged ions e.g. dissociated acidic compds. are separated

on cation exchange resins with **anionic functional groups**. Usually these are sulfonic acid groups. Similarly, samples containing pos. charged species (bases) are separated on the anion

exchange resin containing **cationic functional groups**. Usually these are tetraalkylammonium groups. In a sense these rules are in contrast to those of **ion exchange** chromatog., where anions are separated on anion exchange resins and

cations are separated on cation exchange resins. However, the same columns can be

used in both techniques. For the specific requirements of ion exclusion chromatog. large **ion exchange** capacity is preferential. Along with these, to increase the capacity, the column dimensions and the functional group concentration in the support are maximized.

The usual supports are based on the macro-porous styrene and divinylbenzene copolymer. IEC finds application in the separation of a wide

range of small, neutral or partially ionized mols. In IEC the strong as well as weak electrolytes are eluted unsepd., the 1st at the beginning and the latter at the end of the elution. The retention vols. of the remaining electrolytes are proportional to their dissociation constant values.

The dead and inner vols. of the chromatog. column can be determined from the observed dependence of retention vols. onto dissociation constant values. The retention mechanism is described by the anal. equations and on the results obtained from the computer simulation of the column performance (using global thermodyn. and chromatog. equations or the Craig method). The mixed retention mechanism involving hydrophobic adsorption,  $\pi$ -electron interactions and screening effect is observed for weak electrolytes and aromatic compds. Aromatic compds. are retained almost solely involving interaction of the solute with the unfunctionalized regions of the stationary phase.

The purpose of this paper is to survey the field. The retention mechanism of analyzed compds. in ion-exclusion chromatog. was described. The influence of some physicochem. parameters describing the sample, the chromatog. column and the mobile phase on the retention is discussed. Finally, practical applications are briefly presented.

L10 ANSWER 6 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:568766 CAPLUS  
 DOCUMENT NUMBER: 139:127023  
 TITLE: Ion-gate-type ion exchangers for liquid chromatographic columns, and liquid chromatography  
 INVENTOR(S): Furutsuki, Fumiji  
 PATENT ASSIGNEE(S): Shimazu Corporation, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003207493	A2	20030725	JP 2002-4914	20020111
PRIORITY APPLN. INFO.:			JP 2002-4914	20020111

AB The ion exchanger has a hydrocarbyl framework and both a cationic- and **anionic functional group**, and the ionic dissociation degree, i.e., **ion-exchange** capacity, of both functional groups depends on the pH and/or composition of a surrounding liquid

Also claimed is a liquid chromatog. column employing the ion exchanger as a stationary phase. Thus, HPLC separation of various anions was carried out by using  $RN^+(CH_3)_2(CH_2)nCO_2^-$  as the ion exchanger.

L10 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:542869 CAPLUS  
 DOCUMENT NUMBER: 139:154444  
 TITLE: Evaluation of magnetic **ion exchange** resin treatment for preferential removal of NOM fractions  
 AUTHOR(S): Lee, NoHwa; Sinha, Shahnawaz; Amy, Gary; Bourke, Michael  
 CORPORATE SOURCE: Civil & Environmental Engineering, University of Colorado at Boulder, Boulder, CO, 80309, USA  
 SOURCE: Proceedings - Water Quality Technology Conference (2002) 363-372  
 CODEN: PWQCD2; ISSN: 0164-0755  
 PUBLISHER: American Water Works Association  
 DOCUMENT TYPE: Journal; (computer optical disk)  
 LANGUAGE: English  
 AB Natural organic matter (NOM) has been known to form undesirable disinfection byproducts (DBPs). Since EPA promulgated the Stage 1 disinfection byproducts rule (Stage 1 DBPR) in 1998, the removal of NOM, as a DBP precursor, has been regulated by enhanced coagulation. The MIEX DOC resin target the removal of anionic constituents of NOM by exchanging the sites between **anionic functional groups** (e.g., carboxylic acids) and chloride ion (Cl<sup>-</sup>). This research has focused on characterization of MIEX adsorption of NOM isolates and bulk NOM from natural waters. An enhanced coagulation matrix (source waters with varying TOC and alkalinity) was used as a framework for identifying and selecting natural waters from around the U.S. In all cases, based on XAD 8/4 resin fractionation of raw and MIEX treated waters, effective removals of hydrophobic, transphilic, and hydrophilic NOM acids were observed. The removals of transphilic and hydrophilic (low mol. weight) acids are noteworthy, given the ineffectiveness of coagulation in removing these polar NOM fractions.  
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE  
 FORMAT

L10 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1999:313268 CAPLUS  
 DOCUMENT NUMBER: 131:60676  
 TITLE: Some characteristics of clinoptilolite- and phillipsite-type zeolite molecular sieves  
 AUTHOR(S): Dolaberidze, N. M.; Tsitsishvili, V. G.; Tsiklauri, I.  
 CORPORATE SOURCE: Z. Inst. Fiz. Org. Khim. im. P.G. Melikishvili, AN Gruzii, Georgia  
 SOURCE: Izvestiya Akademii Nauk Gruzii, Seriya Khimicheskaya (1998), 24(1-4), 68-72  
 CODEN: IANKEJ  
 PUBLISHER: Metsniereba  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 AB **Cation-modified** forms of natural clinoptilolite and phillipsite are obtained by **ion exchange** mechanism. Adsorption capacity, water desorption, and stability of **cation-modified** forms is dependent on structure type and nature of heavy cations which are located in the anionic crystal framework. The adsorption capacity and **ion exchange** ability of

studied forms are satisfactory.

L10 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:978079 CAPLUS

DOCUMENT NUMBER: 124:11211

TITLE: **Ion exchange** activity and  
adsorption capacity of cellulose and modified  
cellulose

AUTHOR(S): Padiha, Pedro M.; Campos, Joaquim T. S.; Moreira,  
Jose

C.; Federici, Cilene C.  
CORPORATE SOURCE: Instituto Biociencias, UNESP, Botucatu, 18618-000,  
Brazil

SOURCE: Quimica Nova (1995), 18(6), 529-33

CODEN: QUNODK; ISSN: 0100-4042

PUBLISHER: Sociedade Brasileira de Quimica

DOCUMENT TYPE: Journal

LANGUAGE: Portuguese

AB Cellulose and chemical modified cellulose (CM-cellulose, cellulose  
phosphate,

and oxy-cellulose) were evaluated for adsorption of copper(II) cations in  
aqueous and non-aqueous perchlorate solns. The amount of adsorbed Cu  
was determined by

AAS [atomic absorption spectroscopy] after separation from the  
adsorbent. The sp.

surface area of the adsorbents was determined using the BET  
[Brunauer-Emmett-Teller (isotherm equation)] method. The number of  
carboxyl

groups in CMC was determined by conductimetric titration and the number  
of phosphate

groups was determined by spectrophotometry with Mo blue indicator.

Maximum

adsorption capacity was  $0.54 \cdot 10^{-5}$  mol/g cellulose;  $1.28 \cdot 10^{-4}$  mol/g CMC;

$1.12 \cdot 10^{-4}$  mol/g cellulose phosphate; and  $0.38 \cdot 10^{-4}$  mol/g oxy-cellulose.

The adsorbents can be used for removal of metals, e.g., heavy metals from  
wastewaters and sludges, fuel products, etc.

L10 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:687218 CAPLUS

DOCUMENT NUMBER: 121:287218

TITLE: Molecular-Scale Structure of the **Cation**  
**Modified** Muscovite Mica Basal Plane

AUTHOR(S): Nishimura, S.; Biggs, S.; Scales, P. J.; Healy, T.  
W.;

Tsunematsu, K.; Tateyama, T.  
CORPORATE SOURCE: School of Chemistry, University of Melbourne,  
Parkville, 3052, Australia

SOURCE: Langmuir (1994), 10(12), 4554-9

CODEN: LANGD5; ISSN: 0743-7463

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The muscovite mica basal plane surface was studied directly with atomic  
force

microscopy (AFM), zeta potential, and contact angle measurements after  
H<sup>+</sup>,

Li<sup>+</sup>, K<sup>+</sup>, and Mg<sup>2+</sup> **ion exchange** followed by heating at

300°. Typical AFM images of the H- and K-mica showed an ideal  
array of light spots corresponding to 1-5 O ions on the surface

crystallog. layer of the muscovite mica. No spots were observed in the  
cavity surrounded by the light spots. In particular, the ideal image of



H-mica, which should correspond to a bare basal plane where no interlayer cation exists, indicated that the calcination did not damage the mica basal plane. In the images of the Li- and Mg-micas, a significant irregular array of the light spots corresponding to the O ions and small spots in the hexagonal cavity of the mica basal plane can be observed. Furthermore, the zeta potential of the H- and K-mica basal planes showed identical values to the freshly cleaved mica basal plane, while the zeta potential of Li- and Mg-mica basal planes were much lower in magnitude than freshly cleaved mica. These results substantiate that Li<sup>+</sup> and Mg<sup>2+</sup> ions were fixed irreversibly in the hexagonal cavity on the mica basal plane, resulting in neutralization of neg. charge on the mica basal plane.

However, the K<sup>+</sup> ions can not be fixed in the hexagonal cavity. Such a cation-fixation process reflects the relative size of dehydrated cations and the size of the characteristic hexagonal cavity in the mica basal plane.

L10 ANSWER 11 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1990:100557 CAPLUS

DOCUMENT NUMBER: 112:100557

TITLE: Mechanism of cationic dyeing of an **anion-modified** polyester with benzyl alcohol as a carrier

AUTHOR(S): Yao, Hong; Dong, Lifen; Chen, Yangsan

CORPORATE SOURCE: Res. Inst. Fine Chem., East China Inst. Chem. Technol., Shanghai, Peop. Rep. China

SOURCE: Huadong Huagong Xueyuan Xuebao (1989), 15(1), 56-62  
CODEN: HHKPDM; ISSN: 0253-9683

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB Dyeing of **anion-modified** polyester fibers with C.I.

Basic Blue 5 in aqueous benzyl alc. (I) was studied. Sorption isotherms indicated that dye cations combined with anions within the fiber through **ion exchange**. The dyeing process was an exothermic reaction with a decrease of entropy. The presence of I in the dyeing

bath increased the saturation value and the rate of dyeing while decreasing the affinity, heat, and entropy change of dyeing, leading to the elimination of ring-dyeing. I penetrated into the polyester and reduced the intermol.

interaction in its amorphous region without any impairment of its crystalline

region. Meanwhile, the fiber became swollen and the segmental mobility was further increased, which promoted the process of dyeing.

L10 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:35221 CAPLUS

DOCUMENT NUMBER: 106:35221

TITLE: Oxygen-selective adsorbents

INVENTOR(S): Ichida, Taizo; Minagawa, Isamu; Ora, Hiroyuki; Tsumura, Masanori

PATENT ASSIGNEE(S): Taiyo Sanso Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61212327	A2	19860920	JP 1985-52122	19850314
PRIORITY APPLN. INFO.:			JP 1985-52122	19850314

AB The O-selective adsorbents are **cation modified** zeolites and are manufactured by ion-exchanging a part of alkali or alkaline-earth metal ions in A zeolites, granulating, vacuum-drying, and sintering in O-containing atmospheric. Such ion-exchanging metal ions are  $\geq 1$  of Mn, Cr, Cu, Ni, and Co cations. Thus, 100 g A-zeolite powder was ion-exchanged of K<sup>+</sup>, Ca<sup>++</sup>, or Mg<sup>++</sup> with Na<sup>+</sup> in an aqueous NaCl- solution, suspended in 500 mL water at pH 8.0, mixed by dropwise addition of 0.36 g MnCl<sub>2</sub>·4H<sub>2</sub>O in 3.2 g water, stirred 1 h, filtered, and dried 5 h at 100°. By the ion-exchanging, the Mn content in the zeolite increased from 0.001 to 0.085 weight%. Then, 85 g (above prepared) ion-exchanged zeolite and 85 g 20 weight% SiO<sub>2</sub> aqueous suspension were mixed, kneaded, molded into cylindrical pieces (diameter 5 mm, length 3 mm), dried 1 h at 450° and 1 torr, and sintered 2 h at 550° in air. An acidic gas (400 mL/min at 4.0 kg/cm<sup>2</sup>) containing O 20, He 75, and HCl 5 volume% was passed through a column containing 83 g above sintered zeolite at 20°. The initial O concentration in the discharged gas from the column was 0.5 volume%. The O-adsorbed zeolite was regenerated by heating at 200° and 1 torr. After 100 cycles of such O adsorption-desorption, the adsorbability was not changed.

L10 ANSWER 13 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1986:549073 CAPLUS  
 DOCUMENT NUMBER: 105:149073  
 TITLE: Protein purification on a new preparative ion exchanger  
 AUTHOR(S): Strickler, M. Patricia; Gemski, M. Jude  
 CORPORATE SOURCE: Life Sci. Appl. Lab., Millipore Corp., Rockville, MD, 20852, USA  
 SOURCE: Journal of Liquid Chromatography (1986), 9(8), 1655-77  
 CODEN: JLCHD8; ISSN: 0148-3919  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The ACCELL chromatog. media is a new packing designed specifically for the isolation and purification of proteins. The anionic and **cationic functional groups** are bonded to an encapsulated 40  $\mu$  silica particle which can be readily packed into any size column. These columns can be operated on both high-performance and medium-performance liquid chromatog. equipment. The optimization of the separation conditions on the anion-exchange media for the preparative purification of a monoclonal antibody from ascites is discussed as well as a multistep purification of prostatic acid phosphatase from seminal fluid on the anion and cation exchangers.

L10 ANSWER 14 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1985:408492 CAPLUS  
 DOCUMENT NUMBER: 103:8492  
 TITLE: Binder for molecular sieves  
 INVENTOR(S): Mahrwald, Richard; Zehmisch, Frank; Bettke, Wolfram  
 PATENT ASSIGNEE(S): Karl-Marx-Universitaet Leipzig, Ger. Dem. Rep.  
 SOURCE: Ger. (East), 7 pp.  
 CODEN: GEXXA8  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 215997	A1	19841128	DD 1983-252149	19830620
PRIORITY APPLN. INFO.:			DD 1983-252149	19830620

AB **Cation-modified** bentonite, montmorillonite, or other clay minerals are used as binders for pressed and granulated zeolite mol. sieves. The binder ensures unhindered diffusion of gas mols. to and from the zeolite active centers. The separation factor of C<sub>3</sub>H<sub>8</sub>-C<sub>3</sub>H<sub>6</sub> mixts. is greatly improved by using **cation-modified** clay minerals as binders. Best results were attained by modifying the clay minerals via **ion exchange** in NaCl or MgCl<sub>2</sub> solns.

L10 ANSWER 15 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1977:440920 CAPLUS  
 DOCUMENT NUMBER: 87:40920  
 TITLE: Grafted anionic fibrous webs  
 AUTHOR(S): Brickman, W. James  
 CORPORATE SOURCE: Res. Div., Scott Pap. Co., Philadelphia, PA, USA  
 SOURCE: Tappi (1977), 60(6), 99-102  
 CODEN: TAPPAP; ISSN: 0039-8241  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB Cotton grafted with methacrylic acid [79-41-4] and ethylene glycol dimethacrylate [97-90-5] at 57.3% add-on exhibited H<sub>2</sub>O retention of 9.7g/lg fiber whereas tumble-dried methacrylate-cotton graft copolymer

NH4 salts at 19.2-56.0% add-on had wet pick-up between -2% and 160%.

Grafting of **anionic functional groups** on cotton and Nylon, enhanced hydrophilicity, **ion exchange** capacity, and chemical accessibility while fundamental substrate fiber properties were retained.

L10 ANSWER 16 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1976:598877 CAPLUS  
 DOCUMENT NUMBER: 85:198877  
 TITLE: **Ion-exchange**-resin-supported platinum cluster anion catalysts  
 INVENTOR(S): Ichikawa, Masaru  
 PATENT ASSIGNEE(S): Sagami Chemical Research Center, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51095992	A2	19760823	JP 1975-16340	19750210
JP 57044377	B4	19820921		
PRIORITY APPLN. INFO.:			JP 1975-16340	19750210

AB Polymeric catalytic support having **cationic functional groups** and Pt carbonylanion complexes are **ion-exchange** treated in an appropriate solvent to give Pt cluster-anion type catalyst supported by the polymeric support. The method is very simple, and the Pt cluster anion catalyst can be readily converted to a Pt cluster catalyst by heat-treatment, mild oxidation, reduction, olefin treatment, light irradiation, etc. The catalysts are useful for hydrogenation of olefins and aromatic compds., oxidation of CO, and isomerization of paraffins. Thus, chloroplatinic acid 1g was dissolved in MeOH solution (100 ml) containing 1.0 g NaOH. The solution was stirred under CO atmospheric, the solution was dried, and the residue was extracted with THF to give a solution containing Na<sub>2</sub>[Pt<sub>3</sub>(CO)<sub>6</sub>]<sub>5</sub>. The solution was diluted with THF, then Amberlite CWX (polystyrene having 1 mequiv quaternary ammonium group/g) 20 g was added to the solution, the solution was stirred 1 hr to give a cluster anion catalyst supported by the ion exchanger resin (Pt 0.9 weight % with respect to the resin). The catalyst was heat-treated 2 hr at 120° (at 10-4 torr) and used for hydrogenation of ethylene: the conversion yield was 98% when the reaction was carried out at 20° and at H<sub>2</sub> and C<sub>2</sub>H<sub>4</sub> partial pressures of 100 and 100 torr, resp.

L10 ANSWER 17 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1976:46784 CAPLUS  
 DOCUMENT NUMBER: 84:46784  
 TITLE: Quantitative **ion exchange** process for clay  
 PATENT ASSIGNEE(S): Yissum Research Development Co. of the Hebrew University of Jerusalem, Israel  
 SOURCE: Israeli, 35 pp.  
 CODEN: ISXXAQ  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IL 38356	A1	19750831	IL 1971-38356	19711214
US 3725528	A	19730403	US 1971-116640	19710218
ZA 7108321	A	19720927	ZA 1971-8321	19711213
CA 968912	A1	19750610	CA 1972-132692	19720118
AU 7238097	A1	19730726	AU 1972-38097	19720120
ES 399286	A1	19750601	ES 1972-399286	19720128
IT 948451	A	19730530	IT 1972-48162	19720205
GB 1383376	A	19750212	GB 1972-5985	19720209
BE 779341	A1	19720530	BE 1972-113944	19720214
FR 2127022	A5	19721013	FR 1972-5216	19720216

FR 2127022	B1	19751024		
CH 551480	A	19740715	CH 1972-2195	19720216
NL 7202141	A	19720822	NL 1972-2141	19720218
PRIORITY APPLN. INFO.:			US 1971-116640	A 19710218

AB Acid-free H clays are prepared and are transformed into a salt-free, acid-free cationic form by first treating the clay with an acid and then with an anion exchange resin in the hydroxide state to prepare the acid-free H clay. Then the suspension of H clay is mixed with an equivalent amount of a salt in the presence of an anion exchange resin in the hydroxide state to prepare the salt-free, acid-free **cationic modified** clay. Thus, a crude montmorillonite containing 35 and 47 mequiv./100g, resp., of exchangeable Na<sup>+</sup> and (Ca<sup>2+</sup> + Mg<sup>2+</sup>) and 25 mequiv. soluble salts/100g was converted to the H form by repeated treatment with 0.5N HCl. A 1.2 weight% H-clay suspension was prepared by adding the above clay to deionized water. The H<sup>+</sup> concentration in the solution was 25 mequiv./l. The suspension was treated with enough of an anion exchange resin having quaternary ammonium active groups in the hydroxide form to give a H<sup>+</sup>:OH<sup>-</sup> ratio of 1:1.5. After stirring LiCl was added in an amount equivalent to the cation-exchange capacity of the H clay and the final product contained 80 mequiv. Li<sup>+</sup>/100g clay. The elec. conductivity of an aqueous suspension at 25° was 33.4 μmhr/cm, the pH of a fresh suspension was 7.4 which changed to 5.9 after 15 days.

L10 ANSWER 18 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1974:122073 CAPLUS

DOCUMENT NUMBER: 80:122073

TITLE: **Ion exchange** membrane having an excellent relative-selective permeability between ions

of same sign

INVENTOR(S): Mihara, Kazuhiko; Misumi, Teruyuki; Miyauchi, Kohji

PATENT ASSIGNEE(S): Asahi Chemical Industry Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 20 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	----	-----	-----
JP 48034676	B4	19731023	JP 1967-84472	19671229
PRIORITY APPLN. INFO.:			JP 1967-84472	19671229

AB Ion exchanging membranes were prepared by forming a thin layer of a linear polymer containing crosslinking **cationic functional groups**, e.g. carboxylic or phosphoric acid groups, or **anionic functional groups**, e.g. ammonium, phosphonium or sulfonium groups on a membrane substrate.

L10 ANSWER 19 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1973:20061 CAPLUS  
 DOCUMENT NUMBER: 78:20061  
 TITLE: CMMB. **Cation modified** mixed bed.  
 Efficient low cost two tank demineralization system  
 AUTHOR(S): Crits, G. J.  
 CORPORATE SOURCE: Cochrane Div., Crane Co., King of Prussia, PA, USA  
 SOURCE: Ion Exchange and Membranes (1972), 1(1), 57-62  
 CODEN: IEXMBW; ISSN: 0091-0619  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The demineralization of water with very low leakages was accomplished by various fixed bed **ion exchange** techniques such as countercurrent regeneration, continuous **ion exchange**, multibeds, mixed beds, etc. The CMMB-two tank demineralization system offers high-purity effluent along with low regenerant dosages and high efficiencies without special or complicated procedures or devices. The regeneration procedure lends itself to producing low total regeneration wastes, final rinse vols., and short regeneration time.

L10 ANSWER 20 OF 24 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1972:406792 CAPLUS  
 DOCUMENT NUMBER: 77:6792  
 TITLE: Electrodialysis **ion exchange**  
 membrane which can pass cations with low charges  
 INVENTOR(S): Mizutani, Sachio; Yamane, Reiichi; Sada, Toshikatsu  
 PATENT ASSIGNEE(S): Tokuyama Soda Co., Ltd.  
 SOURCE: Jpn. Tokkyo Koho, 8 pp.  
 CODEN: JAXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 46023607	B4	19710706	JP 1965-69945	19651116

AB A polyelectrolyte having mol. weight > 100 and **cationic functional groups** was added to an electrolyte solution containing .geq. 2 differently charged cations, and the solution was selectively dialyzed with a cation-exchange membrane to sep. the cation with lower charge. The polyelectrolyte could be attached to the cation-exchange membrane. Thus, a mixture of PVC powder 1, styrene 0.90, 50% divinylbenzene 0.10, dioctyl phthalate 0.3, and Bz2O2 0.01 part was applied to a 1.6-mesh polyethylene net and the net was sandwiched with 2 sheets of cellophane, heated 3 hr at 110.deg. and sulfonated 24 hr at 50.deg. with 98% H2SO4. The membrane was used to dialyze a solution containing 0.2 N NaCl and 0.2 N CaCl2 with cation transference number 0.98, elec. resistance 7  $\Omega$ -cm2, and relative transference 2.5 for Ca2+-Na+. When 20 ppm poly(2-vinylpyridinium chloride) [28576-06-9] (mol. weight 30,000) was added to the cathode chamber, the resistance increased to 10  $\Omega$ -cm2 and the relative transference dropped to 0.4 for Ca2+-Na+. Polyethylenimine [9002-98-6] was also useful as well as polyelectrolytes given in 18 other examples.

L10 ANSWER 21 OF 24 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on

STN

ACCESSION NUMBER: 2004:71528 BIOSIS  
DOCUMENT NUMBER: PREV200400073056  
TITLE: Azulene incorporation and release by hydrogel containing methacrylamide propyltrimethylammonium chloride, and its application to soft contact lens.  
AUTHOR(S): Uchida, Rei [Reprint Author]; Sato, Takao; Tanigawa, Haruyasu; Uno, Kenji  
CORPORATE SOURCE: Research and Development Department, SEED Co., Ltd., 117-1 Kano, Okegawa, Saitama, 363-0001, Japan  
rei\_uchida@seed.co.jp  
SOURCE: Journal of Controlled Release, (30 October 2003) Vol. 92, No. 3, pp. 259-264. print.  
ISSN: 0168-3659 (ISSN print).  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 4 Feb 2004  
Last Updated on STN: 4 Feb 2004

AB We have developed the epoch-making contact lens that is equipped with drug

delivery system. The hydrogels contain **cationic functional group** in its side chain were prepared with 2-hydroxyethyl methacrylate (HEMA) and methacrylamide propyltrimethylammonium chloride (MAPTAC). The obtained hydrogel is capable to store the anionic drug such as azulene based on **ion-exchange** reaction. The incorporated anionic drug would be released in physiological condition. The size change of the hydrogel may occur before and after drug release, but we have discovered that the addition of anionic monomer such as methacrylic acid (MAA) and 2-methacryloxyethyl acid phosphate (MOEP) to the above-mentioned composition is effective to prevent the size change, indicating that this hydrogel has the possibility to be applied as a significant drug delivery system device.

L10 ANSWER 22 OF 24 MEDLINE on STN

ACCESSION NUMBER: 2003491414 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 14568407  
TITLE: Azulene incorporation and release by hydrogel containing methacrylamide propyltrimethylammonium chloride, and its application to soft contact lens.  
AUTHOR: Uchida Rei; Sato Takao; Tanigawa Haruyasu; Uno Kenji  
CORPORATE SOURCE: Research and Development Department, SEED Co., Ltd., 117-1 Kano, Okegawa, Saitama 363-0001, Japan..  
rei\_uchida@seed.co.jp  
SOURCE: Journal of controlled release : official journal of the Controlled Release Society, (2003 Oct 30) 92 (3) 259-64.  
Journal code: 8607908. ISSN: 0168-3659.  
PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200406  
ENTRY DATE: Entered STN: 20031022  
Last Updated on STN: 20040615  
Entered Medline: 20040614

AB We have developed the epoch-making contact lens that is equipped with drug

delivery system. The hydrogels contain **cationic functional group** in its side chain were prepared with 2-hydroxyethyl methacrylate (HEMA) and methacrylamide

propyltrimethylammonium chloride (MAPTAC). The obtained hydrogel is capable to store the anionic drug such as azulene based on **ion-exchange** reaction. The incorporated anionic drug would be released in physiological condition. The size change of the hydrogel may occur before and after drug release, but we have discovered that the addition of anionic monomer such as methacrylic acid (MAA) and 2-methacryloxyethyl acid phosphate (MOEP) to the above-mentioned composition is effective to prevent the size change, indicating that this hydrogel has the possibility to be applied as a significant drug delivery system device.

L10 ANSWER 23 OF 24 MEDLINE on STN  
 ACCESSION NUMBER: 96118671 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 7496484  
 TITLE: Purification of recombinant human basic fibroblast growth factor: stability of selective sorbents under cleaning in place conditions.  
 AUTHOR: Anspach F B; Spille H; Rinas U  
 CORPORATE SOURCE: GBF-National Research Centre for Biotechnology, Braunschweig, Germany.  
 SOURCE: Journal of chromatography. A, (1995 Sep 8) 711 (1) 129-39. Journal code: 9318488.  
 PUB. COUNTRY: Netherlands  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199601  
 ENTRY DATE: Entered STN: 19960217  
 Last Updated on STN: 19960217  
 Entered Medline: 19960116

AB Human basic fibroblast growth factor (bFGF) was produced from recombinant Escherichia coli by high-cell-density cultivation. In order to develop a purification strategy for large-scale purification, chromatographic sorbents with different **anionic functional groups** were compared in terms of selectivity for bFGF and stability under cleaning in place (CIP) conditions. Heparin-Sepharose CL-6B, Fractogel EMD-SO3- 650 (S) and SP-Sepharose (high performance)

were

found suitable for this purpose with decreasing selectivity in that order.

Each sorbent was treated eight times under CIP conditions employing both 0.2 and 1.0 M NaOH, in order to study modifications of these sorbents. Heparin-Sepharose displayed more than 50% loss of capacity after the

first

CIP treatment and decreasing selectivity with each cycle. Both cation exchangers displayed almost constant results regarding selectivity and capacity. The Fractogel EMD-SO3- exhibited only slightly lower selectivity for bFGF than Heparin-Sepharose and the highest capacity of all sorbents tested. Agglomeration of bFGF at low salt concentrations

was

a serious problem. By direct application of pooled fractions from Fractogel EMD-SO3- onto Heparin-Sepharose a highly pure product was obtained; however, the recovery after Heparin-Sepharose was only 30%.

L10 ANSWER 24 OF 24 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.

on STN

ACCESSION NUMBER: 2004129033 EMBASE  
 TITLE: Azulene incorporation and release by hydrogel containing methacrylamide propyltrimethylammonium chloride, and its



application to soft contact lens.  
 AUTHOR: Uchida R.; Sato T.; Tanigawa H.; Uno K.  
 CORPORATE SOURCE: R. Uchida, Research and Development Department, SEED Co.,  
 Ltd., 117-1 Kano, Okegawa, Saitama 363-0001, Japan.  
 rei\_uchida@seed.co.jp  
 SOURCE: Journal of Controlled Release, (30 Oct 2003) 92/3  
 (259-264).  
 Refs: 12  
 ISSN: 0168-3659 CODEN: JCREEC  
 PUBLISHER IDENT.: S 0168-3659(03)00368-7  
 COUNTRY: Netherlands  
 DOCUMENT TYPE: Journal; Article  
 FILE SEGMENT: 037 Drug Literature Index  
 039 Pharmacy  
 LANGUAGE: English  
 SUMMARY LANGUAGE: English

AB We have developed the epoch-making contact lens that is equipped with  
 drug delivery system. The hydrogels contain **cationic functional group** in its side chain were prepared with  
 2-hydroxyethyl methacrylate (HEMA) and methacrylamide  
 propyltrimethylammonium chloride (MAPTAC). The obtained hydrogel is  
 capable to store the anionic drug such as azulene based on **ion-exchange**  
 reaction. The incorporated anionic drug would be released  
 in physiological condition. The size change of the hydrogel may occur  
 before and after drug release, but we have discovered that the addition  
 of anionic monomer such as methacrylic acid (MAA) and 2-methacryloxyethyl  
 acid phosphate (MOEP) to the above-mentioned composition is effective to  
 prevent the size change, indicating that this hydrogel has the  
 possibility to be applied as a significant drug delivery system device. .COPYRGT.  
 2003 Elsevier B.V. All rights reserved.

=> L8  
 L11 55 L8

=> d ibib abs 1-55

L11 ANSWER 1 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2004:877952 CAPLUS  
 DOCUMENT NUMBER: 141:355379  
 TITLE: Novel amoxicillin pharmaceutical compositions  
 INVENTOR(S): Chorin, Roland; Cartwright, James; Causeret, Nathalie  
 Barges; Castan, Catherine; Guimberteau, Florence;  
 Meyrueix, Remi  
 PATENT ASSIGNEE(S): Fr.  
 SOURCE: U.S. Pat. Appl. Publ., 16 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004208936	A1	20041021	US 2003-612651	20030702
PRIORITY APPLN. INFO.:			GB 2002-16993	A 20020722

AB **Modified** release pharmaceutical formulations comprising microcapsules of amoxicillin, optionally immediate release amoxicillin and optionally clavulanate are of use in treating bacterial infections, in particular the empirical treatment of infections where penicillin resistant *Streptococcus pneumoniae* may be implicated. For example, microcapsules were prepared by spray coating 700.0 g of amoxicillin/polyvinylpyrrolidone granulate with a composition containing 68.7 g Ethocel 7 premium, 15.3 g Plasdone K29/32, 7.6 g castor oil, 3.8 g Cremophor RH 40, 601.4 g ethanol, and 257.7 g water. The yield obtained was > 95%.

L11 ANSWER 2 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:677771 CAPLUS

DOCUMENT NUMBER: 141:175633

TITLE: Water-thinned pigment ink compositions with good storage stability and method and system for image formation

INVENTOR(S): Koyanagi, Takashi

PATENT ASSIGNEE(S): Seiko Epson Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004231711	A2	20040819	JP 2003-19724	20030129
PRIORITY APPLN. INFO.:			JP 2003-19724	20030129

AB The compns. comprise (A) hydrophobic pigments and (B) dispersing comb graft polymers composed of (a) main chains containing (30-75):(70-25) hydrophobic units and hydrophilic units having **anionic functional groups** and (b) side chains containing  $\leq 30\%$  (based on the dispersing polymers) **cationic** hydrophilic units. Thus, an ink containing 7.0% FW 18 (carbon black) and 5.0% comb graft copolymer composed of 67:33 styrene-acrylic acid copolymer main chain and 20% **polyacrylamide** side chain was used for ink-jet printing, resulting in good discharge stability and high optical d.

L11 ANSWER 3 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:80178 CAPLUS

DOCUMENT NUMBER: 140:151926

TITLE: **Modified**-release microcapsules with slightly soluble active ingredients for oral administration

INVENTOR(S): Guimberteau, Florence; Castan, Catherine; Meyrueix, Remi; Soula, Gerard

PATENT ASSIGNEE(S): Flamel Technologies, Fr.

SOURCE: Fr. Demande, 28 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2842735	A1	20040130	FR 2002-9530	20020726
WO 2004010984	A2	20040205	WO 2003-FR2384	20030728
WO 2004010984	A3	20040408		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: FR 2002-9530 A 20020726

AB **Modified**-release microcapsules allowing the release of active principal in a reliable and reproducible way of not very water soluble compds. are disclosed. Each of these microcapsules comprises a core containing not a very soluble active principle and a film of coating applied to

the core. Their average diameter is smaller than 1000 µm. The film of coating contains a film forming polymer insol. in the gastro-intestinal tract; a water-soluble polymer; a plasticizer; and possibly a surface-active

agent, and a lubricant. This film of coating represents at least 4% of dry total mass. Microcapsule contained Plasdone K29/32 2.55, and acyclovir 82.45% in the core; Ethocel 6.15, Plasdone K29/32 6.15, magnesium stearate 1.50, castor oil 1.20% in the coating were prepared Eighty percent of acyclovir was released in 3 h.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L11 ANSWER 4 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:719683 CAPLUS

DOCUMENT NUMBER: 139:232113

TITLE: Paper materials comprising aqueous **anionic** emulsions of reactive sizes or anhydride sizes stabilized by 0.5-30 parts water-soluble **anionic** polymers or **anionic** starch per part size for manufacture of paper with good retention of emulsion particles and manufacture of internally sized paper using the emulsions therefrom

INVENTOR(S): Rasheed, Ahmed Atef; Langley, John Graham

PATENT ASSIGNEE(S): Amcol International Corporation, USA

SOURCE: PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003074787	A1	20030912	WO 2003-GB914	20030304
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,			

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

EP 2002-251485

A 20020304

AB The **anionic** aqueous emulsions (A1) comprise emulsions of sizes wholly or mainly stabilized by 0.5-30 parts H2O-soluble **anionic** polymeric stabilizers from H2O-soluble synthetic polymers, naturally occurring polymers, and **anionic-modified** naturally occurring polymers per part size, or the **anionic** emulsions comprise A1 emulsions having the sizes comprising a reactive size, or the **anionic** emulsions comprise A1 emulsions having the sizes comprising an anhydride size, or the **anionic** emulsions comprise A1 emulsions comprising an anhydride size in H2O stabilized by 0.5-10 parts **anionic** starch per part size and showing average particle diameter <600 nm, and are stable for ≥24 h. The internally sized paper (including paperboard) is prepared by mixing A1 emulsion into a cellulose emulsion, mixing a retention aid into the suspension before, during, or after the step of mixing the size emulsion into the

suspension,  
 draining the suspension to form a sheet, and drying the sheet. A liquid mixture containing 1% alkenylsuccinic anhydride (I) and 2% **anionic** potato starch was mixed to give an emulsion (A) showing average particle diameter

500 nm and exhibiting same particle diameter on keeping the emulsion for

3

wk. An aqueous furnish containing 50:50 mixture of softwood pulp and hardwood pulp was mixed with A emulsion for 15 s to form a furnish showing I dosage 0.5%

(on furnish solids), stirred 40 s after adding 0.05% **cationic polyacrylamide** to the mixture, subsequently stirred 10 s after adding 0.2% bentonite to the mixture, made into a handsheet, and dried to give paper showing Cobb value 12 g/m2 and Hercules value 1300 s. A handsheet containing 0.3% (on furnish solids) I and 4% **anionic** starch showed tensile strength 1.87 kN/m2.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L11 ANSWER 5 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:396956 CAPLUS

DOCUMENT NUMBER: 138:387042

TITLE: Production of **polyacrylamide** and multivalent **cation-modified** starch for treating aqueous paper dispersions

INVENTOR(S): Moffett, Robert Harvey

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

WO 2003042295	A1	20030522	WO 2002-US37316	20021113
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003102097	A1	20030605	US 2001-66969	20011113
US 6699363	B2	20040302		
EP 1448699	A1	20040825	EP 2002-784528	20021113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
PRIORITY APPLN. INFO.:			US 2001-66969	A 20011113
			WO 2002-US37316	W 20021113

AB A process for producing a **modified** starch product comprises heating a composition containing a starch, a **polyacrylamide**, and a multivalent **cation**, the weight ratio of the starch to the **polyacrylamide** being > 2. The heating is carried out at pH above 7.0, if the **polyacrylamide** is a **cationic polyacrylamide** or nonionic **polyacrylamide**, and, if the starch is a **cationic** starch and the **polyacrylamide** is an amphoteric or **anionic polyacrylamide**, the heating neutralizes < 75% of the **cationic** starch. The process can also comprise heating a composition which consists essentially of a starch and a **polyacrylamide** to produce a heated composition, followed by contacting the heated composition with a multivalent **cation**. The **modified** starch is used as a retention aid in papermaking to improve retention of fine particles and fibers, and wet-end drainage. Thus, a **modified** starch was produced by heating at 90° a composition comprising **cationic polyacrylamide** (Percol 182), a **cationic** potato starch (Stalok 410), MgSO<sub>4</sub> and NaOH.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L11 ANSWER 6 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:178134 CAPLUS

DOCUMENT NUMBER: 138:192367

TITLE: Preparation and application of polymer organic flocculants

AUTHOR(S): Wang, Chunmei; Hu, Xiaolin; Zhang, Zhongxiu

CORPORATE SOURCE: Department of Chemical Engineering, Nantong Engineering College, Nantong, Jiangsu Province, 226007, Peop. Rep. China

SOURCE: Gongye Yongshui Yu Feishui (2002), 33(1), 33-35  
CODEN: GYYFAV; ISSN: 1009-2455

PUBLISHER: Gongye Yongshui Yu Feishui Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The **cationic modified polyacrylamide** (MPAM) and polypolyamine (PPA) were prepared and applied to the flocculation treatment of the wastewater from textile printing and dyeing. Some

factors, such as temperature, reaction time, concentration and ratio of reactants,

optimum amount of addition, and pH value are discussed. The results showed

that MPAM lowered COD value significantly, when PAM was **modified** under the conditions of PAM:HCHO:(CH<sub>3</sub>)<sub>2</sub>NH ratio 1.0:1.0:1.5, at temperature

70°, and with the reaction time 2h. PPA lowered colority significantly, which was prepared at 90°C, with reactant concentration 48.8%, and reaction time 6h. A good effect was observed when the mixture of MPSM, PPA and PAC was used.

L11 ANSWER 7 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:113002 CAPLUS

DOCUMENT NUMBER: 138:154400

TITLE: Deodorizing and antiaggregation paste compositions when packaged in pliable bags and containers

INVENTOR(S): Yoshida, Yasushi; Fujiu, Akira

PATENT ASSIGNEE(S): Kao Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003041483	A2	20030213	JP 2001-227514	20010727
PRIORITY APPLN. INFO.:			JP 2001-227514	20010727

AB The title compns. comprise: (A) a polymer containing units from vinyl acetate

and at least one of unsatd. carboxylic acids or their lower alc. esters, (B) nonionic surfactant, and (C) fragrance substances, and the bags and containers have all light transmittance at 200-800 nm ≤30%. Thus, emulsion polymerizing **cationic-modified** starch, with vinyl acetate, acrylic acid and N,N-dimethylacrylamide gave an A, 65 parts of which was mixed with 3 parts propylene glycol, 0.2 parts KM 97 (silicone) and C to give a title composition stored in a bag laminated from

nylon, LDPE and aluminum foil, wherein C contains: undecyl aldehyde, amyl salicylate, coumarin, cyclamen aldehyde, α-ionone, lavender oil, rose oxide, rosemary oil, and alcs.

L11 ANSWER 8 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:98007 CAPLUS

DOCUMENT NUMBER: 138:125996

TITLE: Formulations containing **polyacrylamide** /sodium acrylate and cellulose, mulch and/or seeds

for

preventing soil erosion

INVENTOR(S): Harrison, Scott

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 4 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003027891	A1	20030206	US 2001-897093	20010629
US 6562882	B2	20030513		
US 2003153647	A1	20030814	US 2003-368904	20030218
PRIORITY APPLN. INFO.:			US 2001-897093	A1 20010629

AB Compsns. for preventing soil-erosion comprise either an aqueous mixture of a polymer mixed with an organic material or a polymer and organic material that can be mixed in water. The polymer preferably comprises **polyacrylamides with anionic functional groups**. The organic base is comprised of cellulose, mulch and/or seed. The compsns. are mixed in aqueous solution and applied to the soil directly to be protected from erosion.

L11 ANSWER 9 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:69034 CAPLUS  
DOCUMENT NUMBER: 138:124138  
TITLE: Masking paper with good sizing properties and wet tensile strength manufactured by forming paper from paper stocks containing CM-cellulose and  $\geq 1$  paper strengthening agent and manufacture thereof  
INVENTOR(S): Gondo, Tomohisa; Watanabe, Shosuke; Hakuto, Kenji; Kitao, Osamu  
PATENT ASSIGNEE(S): Oji Paper Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003027391	A2	20030129	JP 2001-215508	20010716
PRIORITY APPLN. INFO.:			JP 2001-215508	20010716

AB The masking paper (A) contains 0.01-3.0% (on pulp) CM-cellulose (I) with degree of substitution 0.3-0.6, or the masking paper comprises A masking paper exhibiting tensile strength in the wet state 0.4-3.0 kN/m as measured by the method of JIS P-8135, or the masking paper comprises A masking paper exhibiting Stochigt sizing degree  $\geq 3$  s as measured by the method of JIS P-8122, or the masking paper comprising A masking paper exhibiting surface strength  $\geq 14$  as measured by the method of Japan Tappi paper and paper testing Number 1 A method. The masking A paper is prepared by forming paper from paper stocks containing 0.1-2.0% (on pulp) I with degree of substitution 0.3-0.6 and  $\geq 1$  type of paper strengthening agent. A paper stock containing 55:45 mixture of hardwood bleached kraft pulp and softwood bleached kraft pulp, 0.1% (on pulp) I with degree of substitution 0.45, 1.5% AL-120 (sizing agent), 0.9% PS 194-7 ( **anionic polyacrylamide** paper strengthening agent) , and 0.9% U-Ramin P 1510 (**cationic-modified** urea resin wet paper strengthening agent) was made into paper using a papermaking machine

and dried to give a masking paper with breaking length 9.2 km, wet tensile strength 0.82 kN/m, surface strength 20 A (surface) and 20 A (back) and exhibiting Stochigt sizing degree 6 s.

L11 ANSWER 10 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2002:964239 CAPLUS  
DOCUMENT NUMBER: 138:44343  
TITLE: A method for perchlorate removal from ground water  
INVENTOR(S): Cannon, Fred S.; Parette, Robert B.; Na, Chongzheng;  
Chen, Weifang; Hagerup, Benjamin  
PATENT ASSIGNEE(S): The Penn State Research Foundation, USA  
SOURCE: PCT Int. Appl., 49 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002100509	A1	20021219	WO 2002-US18239	20020607
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2003080065	A1	20030501	US 2002-164843	20020607
PRIORITY APPLN. INFO.:			US 2001-296862P	P 20010608

AB A method for removing perchlorate or other **anionic** contaminants from groundwater which comprises the step of passing the groundwater over activated carbon, wherein the activated carbon has been either preloaded with an organic **cationic functional group** or organic **cationic** polymer or **cationic** monomer, or tailored with ammonium or other reduced nitrogen-containing compound

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L11 ANSWER 11 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2002:220421 CAPLUS  
DOCUMENT NUMBER: 136:268234  
TITLE: Hydrophilic, lubricious medical devices having contrast for magnetic resonance imaging  
INVENTOR(S): Schachter, Deborah; Fan, You-Ling; Rutar, Venceslav  
PATENT ASSIGNEE(S): Union Carbide Chemicals & Plastics Technology Corporation, USA  
SOURCE: PCT Int. Appl., 32 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:



PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002022186	A1	20020321	WO 2001-US12458	20010417
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2421931	AA	20020321	CA 2001-2421931	20010417
AU 2001053591	A5	20020326	AU 2001-53591	20010417
EP 1318845	A1	20030618	EP 2001-927110	20010417
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2001013758	A	20030715	BR 2001-13758	20010417
US 2004058082	A1	20040325	US 2003-362203	20030221
PRIORITY APPLN. INFO.:			US 2000-231601P	P 20000911

WO 2001-US12458 W 20010417

AB Disclosed are medical devices having lubricious coatings which are capable of producing magnetic resonance image in the presence of a suitable magnetic field. The medical devices are easy to manipulate in body channels because of reduced friction with tissue surfaces and can be readily visualized in real time, which greatly facilitates the tracking of the medical devices while present within the bodies of humans or animals. The level of magnetic susceptible agent in the coatings of medical devices can be easily controlled by the present invention to give the desired performance. Coating processes to produce these medical devices are also disclosed. An example illustrated the incorporation of a paramagnetic ion [DTPA Gd(III) dihydrogen salt hydrate] into the coating of a medical device (a guidewire constructed of a nylon/polyethylene copolymer).

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L11 ANSWER 12 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:736324 CAPLUS

DOCUMENT NUMBER: 134:209527

TITLE: The effects of **cationic** agents on retention

and sizing of emulsion rosin size

AUTHOR(S): Seki, Junko; Kamijo, Yasuyuki; Miyanishi, Takanori

CORPORATE SOURCE: Pulp & Paper Research Laboratory, Nippon Paper Industries Co., Ltd., Japan

SOURCE: Kami Pa Gikyoshi (2000), 54(10), 1414-1422

CODEN: KAGIAU; ISSN: 0022-815X

PUBLISHER: Kami Parupu Gijutsu Kyokai

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB The effects of **cationic** agents on the retention and development of sizing with emulsion rosin size were studied under acid papermaking. The retention of emulsion rosin size was affected by alum and **cationic** polymers such as size fixing agents and retention aids.

Cationic polymers were consumed primarily in the retention of ash rather than retaining rosin size. In the presence of alum the development of sizing on the handsheets took place when the rosin size contents were greater than 0.25%. Without alum addition, however, sizing development on the handsheets did not take place in spite of adequate rosin size concentration. The results suggest that, the fixing mechanism of rosin in handsheets, prepared with and without alum was different.

L11 ANSWER 13 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:585313 CAPLUS  
DOCUMENT NUMBER: 133:182069  
TITLE: System for photocatalytic removal of indoor air pollutants  
INVENTOR(S): Minami, Toshiaki; Satake, Sumi  
PATENT ASSIGNEE(S): Nihon Seishi K. K., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000229220	A2	20000822	JP 1999-29443	19990208
PRIORITY APPLN. INFO.:			JP 1999-29443	19990208

AB The system comprises a radiational light source covered with honeycomb-structured cylinder comprising of an organic support and a photocatalytic semiconductor-supporting sheet. Fluorescent light is used as the light source.

L11 ANSWER 14 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:249637 CAPLUS  
DOCUMENT NUMBER: 132:283855  
TITLE: Production of fluid-impermeable reactive barrier useful in preventing downward migration of pollutants in groundwater reservoirs  
INVENTOR(S): Lockhart, Thomas Paul  
PATENT ASSIGNEE(S): Eniricerche S.P.A., Italy  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000107745	A2	20000418	JP 1999-283100	19991004
PRIORITY APPLN. INFO.:			IT 1998-MI2123	19981002

AB The title method comprises (a) hydraulic fracturing of the ground surface by injecting with a reactive composition comprising (i) an aqueous solution or suspension containing gelling materials; (ii) aqueous suspension of solids such as

clays, CaCO<sub>3</sub>, colloidal polymers, coal or **modified** amides, and (iii) a montan wax solution/suspension suitable for solidification after cooling; through injection wells under elevated pressure around the boreholes, and (b) repeatedly injection with the composition of (i)-(iii) into the boreholes and maintaining the wells under elevated pressure to form fluid-impermeable in-situ reactive barrier in ground for preventing downward migration of nonaq. phase liqs. (NAPLs) from contaminated groundwater regimes. The gelling material aqueous solution or suspension may contains (a) guar gum, hydroxypropylguar, carboxymethylhydroxypropyl guar in the presence of polyvalent metal ions; (b) **polyacrylamide** in the presence of polyvalent metal ions; (c) xanthan gum in the presence of Ti<sup>4+</sup> or B<sup>3+</sup> ions; (d) lignin sulfonates; and/or (e) cellulose derivs., phosphate esters-**modified** amides, or polysaccharides substituted with **anionic functional groups** in the presence of polyvalent metal ions.

L11 ANSWER 15 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:45182 CAPLUS

DOCUMENT NUMBER: 130:111706

TITLE: **Modified cationic starch**  
composition for use as retention aid in paper manufacture

INVENTOR(S): Moffett, Robert Harvey

PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA

SOURCE: U.S., 6 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5859128	A	19990112	US 1997-960648	19971030
US 5928474	A	19990727	US 1998-176502	19981021
US 6033525	A	20000307	US 1998-176674	19981021
US 6048929	A	20000411	US 1998-176002	19981021
CA 2305471	AA	19990514	CA 1998-2305471	19981023
CA 2307025	AA	19990514	CA 1998-2307025	19981023
WO 9923155	A1	19990514	WO 1998-US22488	19981023
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
WO 9923156	A1	19990514	WO 1998-US22489	19981023
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9911177	A1	19990524	AU 1999-11177	19981023
AU 736084	B2	20010726		
AU 9911178	A1	19990524	AU 1999-11178	19981023

AU 738445	B2	20010920		
BR 9812988	A	20000808	BR 1998-12988	19981023
EP 1025159	A1	20000809	EP 1998-953928	19981023
EP 1025159	B1	20020918		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,				
FI				
EP 1025160	A1	20000809	EP 1998-953929	19981023
EP 1025160	B1	20020904		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE,				
FI				
BR 9813275	A	20000822	BR 1998-13275	19981023
NZ 504093	A	20010330	NZ 1998-504093	19981023
NZ 504094	A	20010629	NZ 1998-504094	19981023
JP 2001521995	T2	20011113	JP 2000-519023	19981023
JP 2001521965	T2	20011113	JP 2000-519024	19981023
AT 223459	E	20020915	AT 1998-953929	19981023
AT 224426	E	20021015	AT 1998-953928	19981023
PT 1025159	T	20021129	PT 1998-953928	19981023
PT 1025160	T	20030131	PT 1998-953929	19981023
ES 2182368	T3	20030301	ES 1998-953928	19981023
ES 2182369	T3	20030301	ES 1998-953929	19981023
CN 1103795	B	20030326	CN 1998-810877	19981023
CZ 293483	B6	20040512	CZ 2000-1450	19981023
NO 2000002178	A	20000620	NO 2000-2178	20000427
NO 2000002179	A	20000620	NO 2000-2179	20000427
PRIORITY APPLN. INFO.:			US 1997-960648	A3 19971030
			US 1998-59556	B2 19980414
			US 1998-151344	A2 19980911
			WO 1998-US22488	W 19981023
			WO 1998-US22489	W 19981023

AB **Modified** starches prepared by cooking an amphoteric or **cationic** starch such as corn starch, potato starch, or waxy maize starch, and an **anionic**, amphoteric, or **cationic polyacrylamide** (PAM) have utility as a retention aid in the manufacture of paper. The invention demonstrates how cooking an amphoteric or **cationic** starch and an **anionic**, amphoteric, or **cationic** PAM together yields better retention than adding the same two chems. sep. but simultaneously to the paper furnish, and how adjusting pH with alkaline aluminum compds. enhances the performance of the cooked blend. Thus, a dry blend comprising 3.0 g of Stalok 300 **cationic** corn starch, 0.04 g of nonionic PAM, and 497 g of deionized water adjusted to pH 10.1, was boiled on a hot plate for about 15 min and any weight loss was made up with water. The above cooked **cationic** corn starch and PAM tested as retention aids to a paper furnish at a dose rate of 0, 0.5, and 1.0 kg SiO<sub>2</sub>/Tonne, resp., gave ash retention 22%, 33%, and 33%, resp., compared to 11%, 19%, and 22%, resp., for adding the same chems. sep. and simultaneously to the paper furnish.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE

FORMAT

L11 ANSWER 16 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:681749 CAPLUS  
DOCUMENT NUMBER: 127:336250  
TITLE: Treatment of turbid water in aggregate plants  
INVENTOR(S): Fujisaka, Yasushi; Tajima, Naoki; Sato, Toshiyuki;  
Ouchi, Hitoshi; Sakata, Noboru; Minami, Masayoshi;  
Yoshizaki, Masato  
PATENT ASSIGNEE(S): Kajima Construction Corp., Japan; Sansho Co.  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09267002	A2	19971014	JP 1996-101952	19960401
PRIORITY APPLN. INFO.:			JP 1996-101952	19960401

AB The turbid water in aggregate plants is flocculated with **cation-modified** derivs. of guar gum and optional **polyacrylamide**

L11 ANSWER 17 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:480766 CAPLUS  
DOCUMENT NUMBER: 127:96746  
TITLE: Manufacture methods of paperboards  
INVENTOR(S): Tomii, Nobunori; Goto, Akira; Nakano, Kenji  
PATENT ASSIGNEE(S): Seiko Kagaku Kogyo Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09143899	A2	19970603	JP 1995-327851	19951124
JP 3285478	B2	20020527		
PRIORITY APPLN. INFO.:			JP 1995-327851	19951124

AB The paperboard making process involves coating the wet paper surface with water-thinned coatings based on (1) amphoteric curable acrylamide copolymers obtained by polymerization of monomer compns. containing curable vinyl monomers, **anionic** monomers, **cationic** vinyl monomers, and acrylamide and/or methacrylamides and (2) **cation-modified** acrylamide copolymers obtained by Hoffman decomposition

L11 ANSWER 18 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:244358 CAPLUS  
DOCUMENT NUMBER: 126:228992  
TITLE: Manufacture and use of a catalytic filter material  
for flue gas treatment  
INVENTOR(S): Plinke, Marc; Sassa, Robert L.; Mortimer, William P., Jr.; Brinckman, Glenn A.  
PATENT ASSIGNEE(S): W.L. Gore & Associates, Inc., USA

SOURCE: PCT Int. Appl., 29 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9706877	A1	19970227	WO 1996-US9760	19960607
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT,				
US 5620669	A	19970415	US 1995-515195	19950815
CA 2228597	AA	19970227	CA 1996-2228597	19960607
CA 2228597	C	20010417		
AU 9661659	A1	19970312	AU 1996-61659	19960607
AU 703305	B2	19990325		
EP 854751	A1	19980729	EP 1996-919284	19960607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11508822	T2	19990803	JP 1997-509255	19960607
JP 2003190721	A2	20030708	JP 2002-278921	19960607
US 5843390	A	19981201	US 1997-786589	19970121
AU 9918351	A1	19990506	AU 1999-18351	19990223
PRIORITY APPLN. INFO.:			US 1995-515195	A 19950815
			AU 1996-61659	A3 19960607
			JP 1997-509255	A3 19960607
			WO 1996-US9760	W 19960607

AB The improved catalytic filter material for removing contaminants such as NOx from a fluid stream comprises composite fibers of expanded polytetrafluoroethylene (PTFE) filled with catalytic particles. The composite fibers are chopped into staple fibers and made into a felt material. Preferably, the felt material is then laminated on at least one side with a protective microporous membrane. The combined filter removes both macro-particles, such as dust, from the filter stream before the dust can clog active catalytic sites and effectively catalytically converts undesirable contaminants in the fluid stream to acceptable end products.

L11 ANSWER 19 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1995:954635 CAPLUS  
 DOCUMENT NUMBER: 123:343710  
 TITLE: Resuable resilient gasket and method for use  
 INVENTOR(S): Dauber, Edwin G.; Hubis, Daniel E.; Mcgregor, Gordon L.; Minor, Raymond B.; Mortimer, William P.  
 PATENT ASSIGNEE(S): W. L. Gore and Associates, Inc., USA  
 SOURCE: PCT Int. Appl., 42 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9520020	A1	19950727	WO 1994-US4910	19940504
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2178494	AA	19950727	CA 1994-2178494	19940504
CA 2178494	C	20000229		
AU 9472420	A1	19950808	AU 1994-72420	19940504
EP 741766	A1	19961113	EP 1994-921897	19940504
EP 741766	B1	19980909		
R: DE, FR, GB, IT, SE				
US 5916671	A	19990629	US 1997-802649	19970218
PRIORITY APPLN. INFO.:			US 1994-186368	A 19940124
			US 1993-23642	B2 19930226
			WO 1994-US4910	W 19940504

AB Title gaskets, useful for computer disk drives and as vent or breather filters, contain  $\geq 1$  layer of deformation-resistant composites of porous polymers (e.g, PTFE) and resilient expandable microspheres. Coagulating an aqueous dispersion containing 5:95 Expancel 091 DU and PTFE with **cationic modified polyacrylamide**, drying the coagulum, grinding, lubricating with mineral spirits, chilling, passing through a mesh screen, tumbling, storing at 18° for 16 h, re-tumbling, forming into pellets, extruding, and drying gave an extrudate having a length (L) of 19.04 cm, a diameter of (D) 0.297 cm, a weight of 1.924 g, and a calculated d. 1.457 g/cm<sup>3</sup>, which was heated at 165° for 3 min to form a product with L 28.1 cm, D 0.569 cm, weight 1.918 g, and calculated d. 0.268 g/cm<sup>3</sup>.

L11 ANSWER 20 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1995:721987 CAPLUS  
 DOCUMENT NUMBER: 123:257711  
 TITLE: Study on the flocculability and thickening property of **modified polyacrylamide**  
 AUTHOR(S): Guo, Deji; Chen Zhongxiang; Hu, Yunzhi  
 CORPORATE SOURCE: Chem. Eng. Dep., East China Inst. Metall., Maanshan, Peop. Rep. China  
 SOURCE: Huadong Yejin Xueyuan Xuebao (1995), 12(4), 386-91  
 CODEN: HYEXEY; ISSN: 1000-2170  
 PUBLISHER: Huadong Yejin Xueyuan Xuebao Bianjibu  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese

AB The optimal conditions for **cationic** modification of mid-mol. weight **polyacrylamide** water solution with formaldehyde and diethylamine sulfate were studied. The flocculability, the thickening property of the product were investigated.

L11 ANSWER 21 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1994:459365 CAPLUS

DOCUMENT NUMBER: 121:59365  
 TITLE: Preparation of phenolic resin foams  
 INVENTOR(S): Takahashi, Hiroo; Koikezawa, Akira  
 PATENT ASSIGNEE(S): Nitto Boseki Co Ltd, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06093128	A2	19940405	JP 1991-354875	19911219
PRIORITY APPLN. INFO.:			JP 1991-354875	19911219

AB The title foams with good metal-corrosion resistance and closed-cell structure, useful for heat insulating materials, are prepared by expanding a mixture comprising phenolic resins, acid hardeners, foam stabilizers, and optionally blowing agent, where the phenolic resins are mixed with powdered basic materials, obtained by dispersing the basic material in H<sub>2</sub>O and then flocking by adding settlers. Thus, 100 g powdered CaCO<sub>3</sub> (average diameter 2.6 μm) was dispersed into 300 mL H<sub>2</sub>O, mixed with 3 g alum, then with 0.8 g **cation-modified polyacrylamide**, the obtained flocks were filtered, dried, and crushed to give powders (7 parts as CaCO<sub>3</sub>), which was blended with phenolic resin (prepared from PhOH 84, 37%-HCHO 558, and brominated cresol monoglycidyl ether 85 parts) 100, L-5340 (foam stabilizer) 0.2, trichlorotrifluoroethane 7, and p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H 15 parts, and heated in a mold at 70° for 40 min to give a foam showing compression strength 2.1 kg/cm<sup>2</sup>, thermal conductivity 0.021 kcal/m-h-°C, closed cell ratio 90%, and good appearance.

L11 ANSWER 22 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1994:9393 CAPLUS  
 DOCUMENT NUMBER: 120:9393  
 TITLE: Study on the dissociation of a new **cationic polyacrylamide**  
 AUTHOR(S): Zang, Qingda; Li, Zhuomei  
 CORPORATE SOURCE: Inst. Polym. Sci., Zhongshan Univ., Canton, 510275, Peop. Rep. China  
 SOURCE: Wuli Huaxue Xuebao (1993), 9(5), 679-83  
 CODEN: WHXUEU; ISSN: 1000-6818  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Chinese

AB **Polyacrylamide** was **modified** with HCHO and dicyandiamide to give a new kind of **cationic** polyelectrolyte (CP) with different degree of substitution (ds) (different HCHO/CONH<sub>2</sub> ratio). CPs are water-soluble and show effective flocculation for active dyes. Dissociation of CPs depends on ds, pH, and added salt concentration. Their reduced viscosity also depends on ds, pH, and polymer dissociation. These results are significant for determination of the optimum conditions for synthesis and applications of CPs.



L11 ANSWER 23 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:494719 CAPLUS  
DOCUMENT NUMBER: 115:94719  
TITLE: Manufacture of paper and paperboard with improved retention and drainage  
INVENTOR(S): Derrick, Arthur P.; Hatton, William  
PATENT ASSIGNEE(S): Vinings Industries, Inc., USA  
SOURCE: U.S., 6 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5032227	A	19910716	US 1990-547485	19900703
FI 9102988	A	19920104	FI 1991-2988	19910619
EP 468558	A2	19920129	EP 1991-201602	19910624
EP 468558	A3	19930714		
EP 468558	B1	19960320		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
AT 135772	E	19960415	AT 1991-201602	19910624
ES 2086475	T3	19960701	ES 1991-201602	19910624
CA 2045702	AA	19920104	CA 1991-2045702	19910626
CA 2045702	C	19960604		
AU 9180100	A1	19920109	AU 1991-80100	19910701
AU 641518	B2	19930923		
NO 9102601	A	19920106	NO 1991-2601	19910702
NO 177866	B	19950828		
NO 177866	C	19951206		
BR 9102791	A	19920204	BR 1991-2791	19910702
JP 04241194	A2	19920828	JP 1991-163049	19910703
PRIORITY APPLN. INFO.:			US 1990-547485	19900703

AB The fines retention or drainage properties of paper and paperboard mech. stocks are improved by including in the thin stock, not after the last point of high shear, particles of a H<sub>2</sub>O-dispersible colloidal siliceous material, e.g., clay minerals and silica, in intimate association with a low-mol. weight H<sub>2</sub>O-soluble high **anionic** charge d. polymer (having a mol. weight <50,000 and a charge d.  $\geq 4$  mequiv/g), and further including in the thin stock, after the last point of high shear, a nonionic high mol. weight polyelectrolyte flocculant having a mol. weight  $\geq 100,000$ . Thus, addition of 0.4% **anionic modified** clay and 0.03% acrylamide-Na acrylate copolymer (I) to thermomech. pulp (at stock consistency 0.63% and fines fraction content 71%) showed retention 37% and drainage 73 s, compared with 7 and 74 without clay and I.

L11 ANSWER 24 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:107931 CAPLUS  
DOCUMENT NUMBER: 114:107931  
TITLE: Cellulose derivative-containing admixtures for improving the quality and/or workability of gypsum-based grout, mortar, and plaster, and the admixtures obtained  
INVENTOR(S): Bietz, Rolf; Gruenberger, Eberhard; Kunz, Ulrike; Ziche, Horst  
PATENT ASSIGNEE(S): Aqualon G.m.b.H., Germany  
SOURCE: Ger. Offen., 6 pp.

DOCUMENT TYPE: CODEN: GWXXBX  
LANGUAGE: Patent  
FAMILY ACC. NUM. COUNT: 1 German  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3920025	A1	19910103	DE 1989-3920025	19890620
DE 3920025	C2	19970327		
PRIORITY APPLN. INFO.:			DE 1989-3920025	19890620

AB The admixts. contain the cellulose derivs., i.e., alkyl-, alkylhydroxyalkyl- and/or hydroxyalkyl cellulose, together with minor amts. of a combination of thickeners and plasticizers for the hydraulically hardening gypsum-based mixts. The admixts. permit a higher water/gypsum ratio and gives creamy-bubble-free mixts. having high stability under shear. An admixt., consisting of Me-hydroxyethyl cellulose (defined) 89, Ca lignosulfonate (plasticizer) 5, and **cationic modified polyacrylamide** 6 weight%, in amount of 1.8 kg was added to a mixture of plaster of Paris 500, anhydrite III 465, Ca(OH)<sub>2</sub> 30, Na laurylsulfate (air-entraining agent) 0.1, and com. retardant 0.6 kg. At water/gypsum ratio 0.53:1, the mixture had slump 172 mm, air content 92%, d. 1.61, and excellent workability.

L11 ANSWER 25 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1991:29109 CAPLUS  
DOCUMENT NUMBER: 114:29109  
TITLE: Multicomponent additives for mortar and hydraulically hardening mortar for thin coatings  
INVENTOR(S): Schinski, Erhard; Wunderlich, Martin  
PATENT ASSIGNEE(S): Aqualon G.m.b.H., Germany  
SOURCE: Ger. Offen., 4 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3913518	A1	19901031	DE 1989-3913518	19890425
PRIORITY APPLN. INFO.:			DE 1989-3913518	19890425

AB In the additives, comprising a mixture of cellulose ethers, starch ethers, and polymers, the starch ethers and **polyacrylamide** are present in admixt. with water-soluble, mixed-substituted cellulose ethers that contain, in addition to hydroxyethyl substituents, 3-alkoxy-2-hydroxypropyl containing 2-8 C atoms in the straight-chain and/or branched alkoxy groups. These mortar composition have improved setting, adhesion, wear-resistance, and peel strength (DIN 18156, section 4.3, 4.4, 4.5, and 4.6). The additives are added in amts. of 1-10, preferably approx. 0.3-0.6 weight% (dry basis) to the mortar (dry basis). A dry mixture of portland cement 800, and sand

(0-0.3 mm) 1200, was mixed with multicomponent additive 10 g consisting of 80 weight% 3-butoxy-2-hydroxypropylhydroxyethyl cellulose having degree of hydroxyethyl substitution 3.5 and alkoxyhydroxypropyl group substitution 0.1, 18 weight% hydroxypropyl starch (degree of substitution .apprx.0.7) and 2 weight% strong **anion-modified polyacrylamide** (viscosity of 0.5% solution 900 mPa-s). The mixture was mixed with 600 g water and had slump 15.4 cm, d. 1775 kg/dm<sup>3</sup>, pore volume 12.0%, early setting time 10 min, and particles >2 mm 0%.

L11 ANSWER 26 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1989:233499 CAPLUS  
 DOCUMENT NUMBER: 110:233499  
 TITLE: Coating compositions for paper  
 INVENTOR(S): Nishiura, Osamu; Ikeda, Takeshi; Takizawa, Satoshi; Yamaguchi, Hisashi; Esashi, Tomoaki  
 PATENT ASSIGNEE(S): DIC Hercules, Inc., Japan; Kimitsu Chemical Industrial Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01014396	A2	19890118	JP 1987-165227	19870703
JP 2572233	B2	19970116		
PRIORITY APPLN. INFO.:			JP 1987-165227	19870703

AB Title compns., useful for improving the printability and water resistance of paper, comprise aqueous solns. of chitosan (I), and starch or its derivs., cellulose derivs., poly(vinyl alc.), or **polyacrylamide**. Thus, paper coated with an aqueous solution containing 0.5% I and 4.5% OJI ACE A (oxidized starch) (II) at 0.10 g I/m<sup>2</sup> and 0.91 g II/m<sup>2</sup> showed Stoeckigt sizing degree 5.9 s, Cobb sizing degree (2 min) 36.4 g/m<sup>2</sup>, dry breaking length 4.56 km, and wet breaking length 0.25 km, vs. 1.6, 171.9, 3.96, and 0.15, resp., for paper coated with 5% aqueous solution of II at 1.10 g/m<sup>2</sup>.

L11 ANSWER 27 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1988:46872 CAPLUS  
 DOCUMENT NUMBER: 108:46872  
 TITLE: Ink-jet printing receptor for overhead projection slide  
 INVENTOR(S): Sakaki, Mamoru; Arai, Ryuichi; Togano, Shigeo; Akitani, Takashi; Hikuma, Masahiko; Eto, Naonobu; Mori, Hidemasa; Hida, Michiaki; Ishida, Masahiko; Kono, Shunzo  
 PATENT ASSIGNEE(S): Canon K. K., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62152779	A2	19870707	JP 1985-292823	19851227
PRIORITY APPLN. INFO.:			JP 1985-292823	19851227

AB The receptor has  $\geq 2$  ink-receiving layers in which the ink-absorbing rate of the upper layer is larger than that of its adjoining lower layer. The ink-receiving layer may be composed of water-soluble or hydrophilic polymers. A light-transmitting PET(polyester) film may be coated successively with a comb-structured polymer LHM 108 (N,N-dimethylacrylamide-2-hydroxyethyl methacrylate-Me methacrylate graft copolymer) solution and a **cation-modified** poly(vinyl alc.) solution to give a receptor. It shows improved ink fixability and light transmittance.

L11 ANSWER 28 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:517253 CAPLUS

DOCUMENT NUMBER: 107:117253

TITLE: Paper additives: **cationic-modified polyacrylamide** aqueous solutions

INVENTOR(S): Kimura, Yoshiharu; Hasegawa, Shigeaki; Noguchi, Hisao;

Hamada, Masao

PATENT ASSIGNEE(S): Harima Refractories Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62059602	A2	19870316	JP 1985-199042	19850909
JP 06096839	B4	19941130		
PRIORITY APPLN. INFO.:			JP 1985-199042	19850909

AB The title solns. are prepared using reaction products of **polyacrylamide** and hypohalites under alkaline conditions and 1-10% (based on the amide group in acrylamide)  $R_2(CH_2)_nNHCH_2CHR_1CONH(CH_2)_mA$  ( $R_1 = H, Me$ ;  $R_2 = NH_2, OH$ ;  $A = NR_3R_4, N+R_5R_6R_7.X^-$ ;  $R_3-R_7 = alkyl, benzyl$ ;  $X^-$

=

various **anions**;  $n = 2-6$ ;  $m = 1-4$ ). Thus, a product (I) was prepared from dimethylaminopropylmethacrylamide and ethylenediamine. **Polyacrylamide** (average mol. weight 800,000, 15% aqueous solution 180 g)

was

treated with 90 g aqueous solution (containing 41.5 g NaClO and 3.8 g NaOH for 60 min, mixed with 4.4 g I for 20 min, and adjusted to pH 4.5 to give a solution, storage-stable at 40° after 10 days.

L11 ANSWER 29 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1987:214637 CAPLUS

DOCUMENT NUMBER: 106:214637

TITLE: **Cation-modified acrylamide** polymers

INVENTOR(S): Kametani, Masaya; Arisaka, Ichiro  
 PATENT ASSIGNEE(S): Nitto Electric Industrial Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61120807	A2	19860607	JP 1984-240847	19841116
JP 05027642	B4	19930421		
PRIORITY APPLN. INFO.:			JP 1984-240847	19841116

AB The title polymers with good storage stability are prepared economically by treating acrylamide polymers with hypochlorites in alkaline media containing guanidine salts. Thus, 94.7 g 15% aqueous **polyacrylamide** (mol. weight .apprx.55,000) was mixed with a solution of 29.8 g 10% NaOCl and 2.4 g NaOH for 5 min at 20°, then 1.9 g guanidine hydrochloride (I) was added. After stirring for .apprx.1 h at 25-30°, 5 g 15% aqueous Na2SO3 was added and the solution acidified with HCl to pH 4.5, and diluted with water to make a 10% solution of the **polyacrylamide**, which was colorless and had NH2 content 16.0 mol%, CO2H content 1.1 mol%, and viscosity 32.5 cP initially, and NH2 content .apprx.13 mol% after 20 days, a **modified** polymer solution prepared similarly using extra NaOH instead of I gelled.

L11 ANSWER 30 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1986:593229 CAPLUS  
 DOCUMENT NUMBER: 105:193229  
 TITLE: Paper manufacture  
 INVENTOR(S): Nomura, Yoshinogi; Sakai, Kensaku  
 PATENT ASSIGNEE(S): Honshu Paper Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61063796	A2	19860401	JP 1984-183696	19840904
PRIORITY APPLN. INFO.:			JP 1984-183696	19840904

AB Paper (containing ≥40% ash) is manufactured by mixing pulp suspensions with fillers and **cationic** polymers to increase the ζ-potential (Z) to a pos. value, then mixing with **anionic** polymers to change Z to -5 to -10 mV before papermaking. Thus, a suspension of softwood and hardwood bleached kraft pulps (Z -19 mV) was mixed with Hercon W (alkylketene dimer) 1, CaCO3 140, and number 3 Tapioca Dempun ( **cationic modified** starch) 6% to make Z 5 mV, then mixed with 0.8% Polystyron 117 (I) to change Z to -5 mV. Paper manufactured from the

suspension contained 42% ash and had breaking length 3.9 km and opacity 85%, compared with 17, 3.9, and 77, resp., for paper manufactured from a similar pulp suspension (Z -6 mV) without I.

L11 ANSWER 31 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1986:212682 CAPLUS  
DOCUMENT NUMBER: 104:212682  
TITLE: Dewatering of organic sludges  
INVENTOR(S): Sato, Hiroaki; Eto, Masanori; Igarashi, Chiaki  
PATENT ASSIGNEE(S): Ebara-Infilco Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 61025699	A2	19860204	JP 1984-145612	19840713
PRIORITY APPLN. INFO.:			JP 1984-145612	19840713

AB Organic sludges are dewatered by mixing with **cationic** organic polymer coagulants having colloidal **cationic** charge  $\geq 5$  mequiv/g dry matter at pH 4 and **cationic** organic polymer coagulants comprising poly(alkylaminoethyl acrylates), poly(alkylamino methacrylates), or their copolymers with **polyacrylamides** or their quaternary  $\text{NH}_4^+$  salts, then dewatering the formed flocs. Thus, a mixed raw sludge (pH 6.9; concentration 30.3 g/L) was mixed with 0.3% (based on dry solids) polyamine (I) with **cationic** charge 7.2 mequiv/g and 0.7% (based on dry solids) dimethylamino methacrylate polymer with **cationic** charge 3.8 mequiv/g to form flocs, which were applied to a belt-press dehydrator, showing water content of cake 74.3% and throughput 97 kg (dry basis)/m-h, vs. 76.2% and 65 kg (dry basis)/m-h, resp., without the I.

L11 ANSWER 32 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1985:525269 CAPLUS  
DOCUMENT NUMBER: 103:125269  
TITLE: Improving filler retention in paper manufacture  
PATENT ASSIGNEE(S): Seiko Chemical Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60065195	A2	19850413	JP 1983-171334	19830919
JP 05040076	B4	19930617		
PRIORITY APPLN. INFO.:			JP 1983-171334	19830919

AB **Cationic** starch and Hofmann degradation products of acrylamide polymers are added to an aqueous pulp slurry as filler retention aids. Thus, 100 parts hardwood bleached kraft pulp (as aqueous slurry) was mixed successively with 35 parts  $\text{CaCO}_3$ , 0.15 part Hercon W size, 0.125 part Cato

102 (I) [98227-06-6] (**cation-modified** starch), and 0.375 part Hofmann decomposition product (II) of a mixture of **polyacrylamide** and  $\text{HOC}_2\text{H}_4\text{N}+\text{Me}_2\text{CH}_2\text{Ph Cl}-$ . Paper made from the mixture had ash content 11.62% and filler retention 73.5% vs. 8.17% and 50.0%, resp., without I and 6.27% and 36.0%, resp., without II.

L11 ANSWER 33 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1985:225795 CAPLUS  
DOCUMENT NUMBER: 102:225795  
TITLE: Flocculants for water treatment  
PATENT ASSIGNEE(S): Toyo Soda Mfg. Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60019006	A2	19850131	JP 1983-125465	19830712
PRIORITY APPLN. INFO.:			JP 1983-125465	19830712

AB Suspended solns. are clarified by mixing with a coagulant, a copolymer of methacrylamide and unsatd. carboxylic acids, and adjusting the pH to  $\leq 5$ . The flocculants are useful for water and wastewater treatment. Thus, 15 parts methacrylamide, 15 parts methacrylic acid, and 0.02 part

Na azobis[cyanovalerate] were mixed and stirred for 3 h at 50° to obtain a copolymer (A) with weight-average mol. weight 700 + 104. Then, 0.5 mL 0.1% aqueous A was added to 100 mL 3% aqueous kaolin suspension; the suspension was adjusted to pH 3.5 with 1N aqueous HCl, stirred, and allowed to stand for 5 min, showing transmittance of the supernatant 96%, vs. 11% using a com. polymer coagulant, an **anion-modified polyacrylamide**.

L11 ANSWER 34 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1985:190451 CAPLUS  
DOCUMENT NUMBER: 102:190451  
TITLE: Sludge dewatering  
PATENT ASSIGNEE(S): Ebara-Infilco Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60005300	A2	19850111	JP 1983-111027	19830622
PRIORITY APPLN. INFO.:			JP 1983-111027	19830622

AB Night soil is screened, and the screened liquor is treated by an activated sludge process, coagulation, and addition processes. The solid from the screening is rinse and the rinse waste is forwarded to the

activated-sludge process. The rinsed solid is mixed with concentrated sludges from the activated sludge process and coagulation, mixed with a polymer coagulant (**cation modified polyacrylamide**) and dewatered. The sludge cake contains 50% water and sludge production is minimized.

L11 ANSWER 35 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1985:133080 CAPLUS  
DOCUMENT NUMBER: 102:133080  
TITLE: **Cationic modified polyacrylamide**  
PATENT ASSIGNEE(S): Harima Chemicals, Inc., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59189102	A2	19841026	JP 1983-62864	19830409
JP 04080924	B4	19921221		
PRIORITY APPLN. INFO.:			JP 1983-62864	19830409

AB **Polyacrylamide** (I) and hypohalite in an alkaline medium reacted with epihalohydrin-dialkylamine quaternary condensation product (d.p. 1-5) and a hydroxy-containing quaternary alkyl halide to give the title composition For example, 50% aqueous (Me)<sub>2</sub>NH 50% aqueous was mixed with 15% HCl 60.7 and epichlorohydrin 69.4 g, heated 2 h at 45-50°, mixed with 69.8 g choline-HCl and 133.3 g 15% aqueous NaOH, and heated 2 h at 45-50° to give a condensation product (A), of a solid content 20%. A mixture of 108.4 g **polyacrylamide** solution (concentration 16.3%; viscosity 7500 cP) and 19.2 g A were mixed with 40 g of a solution containing 1.8 g NaClO and 1.0 g NaOH, heated 60 min at 25°, and adjusted pH 4.5 to give the title composition with 10% effective **cationic** I.

L11 ANSWER 36 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1983:216577 CAPLUS  
DOCUMENT NUMBER: 98:216577  
TITLE: Easily dispersible water-soluble polymer composition  
INVENTOR(S): Umekawa, Osamu; Ito, Yosuke; Katayama, Sakae  
PATENT ASSIGNEE(S): Katayama Chemical Works Co., Ltd., Japan  
SOURCE: Ger. Offen., 18 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3225246	A1	19830120	DE 1982-3225246	19820706
JP 58011553	A2	19830122	JP 1981-108686	19810711
JP 61048546	B4	19861024		



US 4409353                      A            19831011            US 1982-393380            19820629  
 PRIORITY APPLN. INFO.:                      JP 1981-108686            19810711

AB    Compns. with improved dispersibility and H2O solubility, having a high degree of granulation and free fluidity, comprise a H2O-soluble polymer with flocculation properties, a Na sulfate hydrate, a Mg sulfate hydrate, and/or a hygroscopic compound. Thus, a composition comprising partially hydrolyzed **polyacrylamide** (I) 5, Na2SO4.10H2O 2, and MgSO4 3 parts had good granulation and thermal stability, and was dispersible and soluble in H2O. A comparison composition comprising 10 parts partially hydrolyzed I and no additives had satisfactory thermal stability, but was not granular and was not dispersible or soluble in H2O.

L11    ANSWER 37 OF 55    CAPLUS    COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER:            1982:186801    CAPLUS  
 DOCUMENT NUMBER:            96:186801  
 TITLE:                        Sludge treatment  
 PATENT ASSIGNEE(S):        Ebara-Infilco Co., Ltd., Japan  
 SOURCE:                       Jpn. Kokai Tokkyo Koho, 6 pp.  
                               CODEN: JKXXAF  
 DOCUMENT TYPE:               Patent  
 LANGUAGE:                    Japanese  
 FAMILY ACC. NUM. COUNT:    1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57012900	A2	19820122	JP 1980-85436	19800624
PRIORITY APPLN. INFO.:			JP 1980-85436	19800624

AB    Sludges are treated with H2O2 and a polymer coagulant to maintain the solid content to 10-500 g/L, stirred to pelletize, then the pellets are separated. Thus, a sewage sludge was treated with H2O2 and a **cationic modified polyacrylamide**, then stirred to form pellets containing 87% moisture. The pellets were then pressed to dewater to 71% moisture.

L11    ANSWER 38 OF 55    CAPLUS    COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER:            1982:106059    CAPLUS  
 DOCUMENT NUMBER:            96:106059  
 TITLE:                        **Modified** acrylamide for papermaking  
 PATENT ASSIGNEE(S):        Hoshimitsu Chemical Co., Ltd., Japan  
 SOURCE:                       Jpn. Kokai Tokkyo Koho, 13 pp.  
                               CODEN: JKXXAF  
 DOCUMENT TYPE:               Patent  
 LANGUAGE:                    Japanese  
 FAMILY ACC. NUM. COUNT:    1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 56144295	A2	19811110	JP 1980-45864	19800408
JP 62045884	B4	19870929		
PRIORITY APPLN. INFO.:			JP 1980-45864	19800408

AB    **Modified** acrylamide polymers containing-  
 CH2CR[NHCO2CH(CH2N+R1R2R3)(CH2)nN+R4R5R6 2X-] - and -CH2CR(NH2)- units (R  
 =

H, Me; R1, R2, R4, R5 = lower alkyl; R3, R6 = lower alkyl, PhCH2; X- = **anion**; n = 1-5) are papermaking additives as drainage aids, strengthening agents, and size and filler retention agents. For example, a mixture of 75 g 16% aqueous **polyacrylamide** (mol. weight 300,000) and 105 g 40% aqueous HOCH2(CH2N+Me3)2 2Cl- was treated with aqueous

NaOCl-KOH at

25° for 60 min to give a 3% aqueous **cationic** polymer containing 23.5 mol% -CH2CH[NHCO2CH(CH2N+Me3)2 2Cl-] units and 20.6 mol% -CH2CH(NH2)- units, useful as a papermaking aid.

L11 ANSWER 39 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1981:32544 CAPLUS

DOCUMENT NUMBER: 94:32544

TITLE: **Polyacrylamide modified cation solutions**

PATENT ASSIGNEE(S): Seiko Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 55108405	A2	19800820	JP 1979-15915	19790214
JP 58008682	B4	19830217		
PRIORITY APPLN. INFO.:			JP 1979-15915	19790214

AB A **cationic modified polyacrylamide** (I)

[9003-05-8] solution that is used as a papermaking additive is prepared

by

reacting I with a hypohalous acid salt under alkaline conditions, and

reacting

the product with a **cationic** compound RC6H4CH2N+R1R2ZOHX- (II; Z = alkylene; R = H, lower alkyl; R1,R2 = lower alkyl, X- = **anion**)

at 1-10 mol % based on amide groups of I and maintaining pH 3.5-5.5.

Thus, 190 g of solution containing 8.4% I (average mol. weight 300,000),

1.5 g (R = H,

R1 = R2 = Me, Z = CH2CH2, X = Cl) [7221-40-1] (3 mol % per NH2 of I),

and

97.7 g alkaline solution containing 30 g NaOCl and 3.7 g KOH were mixed

at 25°

for .apprx.60 min. The pH of the converted polymer solution (III) was adjusted to 4.5 with HCl, and the solution was diluted to 0.12%. A 1%

pulp

slurry was prepared from 2 g pulp beaten to 350 mL Canadian standard

freeness

and was mixed with 2 mL III. The slurry was placed on a number 3 Toyo

filter

paper, and the amount of water filtered in 2 min was measured. The

III-treated pulp yielded 92 mL compared with 89 mL from a paper treated with a slurry lacking II, and 31 mL from the filter paper alone.

L11 ANSWER 40 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1980:78475 CAPLUS

DOCUMENT NUMBER: 92:78475

TITLE: Self-coloring-type pressure-sensitive record sheet

INVENTOR(S): Yabuta, Kenji; Toyama, Koji; Fuchigami, Makoto;

Tsukahara, Hirokazu

PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54110008	A2	19790829	JP 1978-17388	19780217
AT 373826	B	19840227	AT 1979-7429	19791122
AT 7907429	A	19830715		
PRIORITY APPLN. INFO.:			JP 1978-17388	19780217

AB Crystal Violet Lactone (I) [1552-42-7] (20 parts) was dissolved in 200 parts SAS oil, mixed with 25 parts Coronate HL and 25 parts Banol D 750, emulsified with 5% aqueous Sumirez 614 Special (**cation-modified** formaldehyde-urea resin) [72485-00-8], mixed with 250 parts water containing 50 parts Epinox P 130, polymerized interfacially at 60° for 3 h to form capsules having polyurea [72640-56-3] linkages, mixed (5 parts, dry) with pulp 100, a developer containing a p-phenylphenol resin 5, rosin 1, Al sulfate 2, and a **cation-modified polyacrylamide** 0.5 part, used to prepare paper sized with 3% aqueous oxidized starch, and pressed to give reflectance 83% for the colorless area and 42.9% for the color area, compared with 63.4% and 49.1%, resp., for paper containing I in gelatin capsules.

L11 ANSWER 41 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1979:191605 CAPLUS  
DOCUMENT NUMBER: 90:191605  
TITLE: Mineral fiber sheets with high strength  
INVENTOR(S): Yoshioka, Shigehiko; Hashimoto, Hajimu; Saito, Osamu  
PATENT ASSIGNEE(S): Seiko Chemical Industry Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 54003868	A2	19790112	JP 1977-69248	19770610
PRIORITY APPLN. INFO.:			JP 1977-69248	19770610

AB High-strength mineral fiber sheets are made from mineral fiber dispersions by using a (2-7) : (3-8) **anion-modified polyacrylamide-cation-modified polyacrylamide** (amine conversion of carboxyamide group ≥10%) mixture as binder. Thus, 90 g **polyacrylamide** was mixed with 38 g water, reacted with 28.1 aqueous NaClO (effective Cl 12.8%) and 7.1 g 48% KOH, and mixed with 70.4 g water to obtain a **cation-modified polyacrylamide** (amine conversion 24%) solution. Then, a rock wool sheet was made with 2.4 com. **anion-modified polyacrylamide** and 1.6% **cation-**

**modified polyacrylamide.** The sheet had deflective strength 352 and 219 g at relative humidity 45 and 95%, resp.

L11 ANSWER 42 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1979:39458 CAPLUS  
DOCUMENT NUMBER: 90:39458  
TITLE: Continuous methods for production of a  
**cationic modified** acrylamide polymer  
INVENTOR(S): Tuka, Richard F.; Vossos, Peter H.; Nielsen, Ralph  
R.;  
Guardia, Carl J.  
PATENT ASSIGNEE(S): Nalco Chemical Co., USA  
SOURCE: Ger. Offen., 26 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2720494	A1	19781109	DE 1977-2720494	19770505
DE 2720494	C2	19850411		
CA 1085078	A1	19800902	CA 1977-274937	19770328
PRIORITY APPLN. INFO.:			DE 1977-2720494	19770505

AB Dilute aqueous solns. of **cationic modified polyacrylamides** are manufacture by forming a process stream of water, HCHO, secondary C2-4 alkylamines, and water-in-oil emulsions of finely divided **polyacrylamides**, under conditions such that the water-in-oil emulsions undergoes inversion and passing the stream through a mixer in turbulent flow to give the desired solution Thus, a process stream consisting of 37.8 m/min water was successively mixed with 6056.5 g/min 60% aqueous Me2NH, 439.1 g/min ethoxylated nonylphenols, 6220.2 g/min 37% aqueous HCHO, and 21440 g water-in-oil emulsion containing 25.4% **polyacrylamide** of intrinsic viscosity 8.5. The stream was then passed through a mixer in which the emulsion was inverted and reaction took place, giving a diluted aqueous solution containing 10.6 % N-methylolpolyacrylamide.

L11 ANSWER 43 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1977:602365 CAPLUS  
DOCUMENT NUMBER: 87:202365  
TITLE: Manniched **polyacrylamide** quaternaries  
INVENTOR(S): Hunter, Wood E.; Sieder, Theodore P.  
PATENT ASSIGNEE(S): Nalco Chemical Co., USA  
SOURCE: U.S., 6 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4049606	A	19770920	US 1976-705973	19760716
PRIORITY APPLN. INFO.:			US 1976-705973	19760716

AB By utilizing sp. pH ranges Mannich derivs. of **polyacrylamides**

and quaternized Manniched **polyacrylamides** were manufactured with improved yields. Thus, 216 g of a 37% aqueous solution of HCHO [50-00-0] was added dropwise over a period of 30 min to 947 g of a 20% solution of **polyacrylamide** [9003-05-8] at pH 5.0 and 30-5°. After 15 min at this temperature 300 g of a 40% aqueous solution of Me<sub>2</sub>NH [124-40-3] was added dropwise while maintaining the temperature ≤48-50° to give a product with 23.6% active **cationic** modification. Sulfuric acid was added to the above solution to adjust the pH to 8.3. The solution was heated to 80-110°, combined with 83 g methyl chloride, heated 3 h at 80-110° and cooled to give the quaternized product.

L11 ANSWER 44 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1977:490420 CAPLUS  
DOCUMENT NUMBER: 87:90420  
TITLE: Sludge dewatering  
INVENTOR(S): Horiguchi, Tadao; Miyata, Kazuo; Yamamoto, Kazumasa  
PATENT ASSIGNEE(S): Kurita Water Industries, Ltd., Japan  
SOURCE: Jpn. Tokkyo Koho, 7 pp.  
CODEN: JAXXAD  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51033867	B4	19760922	JP 1970-75626	19700831
PRIORITY APPLN. INFO.:			JP 1970-75626	19700831

AB A metal salt (Al or Fe); a low m.w. polycationic compound (**cation modified** polynuclear compound), polyamide, or polyamine; and a **cation modified polyacrylamide** are added to a sludge to improve dewatering, and the method is used to treat domestic or industrial sludges. For example, Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub>·18H<sub>2</sub>O, a polyamide (mol. weight several 1000), and a **polyacrylamide** [9003-05-8] (mol. weight 4.0-4.5 + 106) dewatered sludge at 92.4 kg/m<sup>2</sup>-h vs. 24.2 kg/m<sup>2</sup>-h for a comparison method.

L11 ANSWER 45 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1977:458160 CAPLUS  
DOCUMENT NUMBER: 87:58160  
TITLE: Sludge treatment  
INVENTOR(S): Saga, Masataka  
PATENT ASSIGNEE(S): Ebara-Infilco Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 52030781	A2	19770308	JP 1975-107815	19750905
PRIORITY APPLN. INFO.:			JP 1975-107815	19750905

AB An emulsion containing petroleum oil, a surfactant, and a high polymer coagulant is added to a sludge, then the mixture is coagulated and dewatered. Thus, a mixed raw sewage was treated with an emulsion containing oleylamine hydrochloride [41130-29-4], a **cation-modified polyacrylamide** [9003-05-8], and heavy oil, then dewatered. The dewatered cake contained 67.4% water.

L11 ANSWER 46 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1976:548609 CAPLUS

DOCUMENT NUMBER: 85:148609

TITLE: Treatment of waste water containing nonionic surfactant

INVENTOR(S): Nakayama, Keiichi; Nakamura, Yoshinobu; Yoshida, Tomoyuki; Suzuki, Takehiro; Kimura, Yuji

PATENT ASSIGNEE(S): Toho Chemical Industry Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51020466	A2	19760218	JP 1974-91478	19740812
PRIORITY APPLN. INFO.:			JP 1974-91478	19740812

AB Nonionic surfactant-containing waste water is mixed with a compound containing a C>8-hydrocarbon group and CO<sub>2</sub>M, SO<sub>3</sub>M, and/or OSO<sub>3</sub>M (M = H, NH<sub>4</sub>, or monovalent metal) and then treated with an inorg. flocculant and optionally an organic flocculant. Thus, a solution 480 g (COD 923 ppm) containing 0.04% poly(oxyethylene) nonylphenyl ether [9016-45-9] was agitated with 8 ml 1% aqueous C<sub>12</sub>H<sub>25</sub>OSO<sub>3</sub>Na [151-21-3] at 20° for 1 min, mixed with 7.5 ml 1% aqueous polyaluminum chloride solution and 2 ml 0.1% aqueous solution of an **anion-modified polyacrylamide** flocculant, settled for 10 min, and filtered. The filtrate had COD 218 ppm.

L11 ANSWER 47 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1976:496058 CAPLUS

DOCUMENT NUMBER: 85:96058

TITLE: Paper filler

INVENTOR(S): Davidson, Richard Robertson

PATENT ASSIGNEE(S): Associated Portland Cement Manufacturers Ltd., UK

SOURCE: Ger. Offen., 56 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2555401	A1	19760616	DE 1975-2555401	19751209
DE 2555401	C2	19870212		
GB 1497280	A	19780105	GB 1974-53309	19741210
FI 7503394	A	19760611	FI 1975-3394	19751202

FI 57150	B	19800229		
FI 57150	C	19800610		
SE 7513736	A	19760611	SE 1975-13736	19751205
SE 427678	B	19830425		
SE 427678	C	19830804		
FR 2294268	A1	19760709	FR 1975-37560	19751209
FR 2294268	B1	19800125		
ES 443368	A1	19770416	ES 1975-443368	19751210
PRIORITY APPLN. INFO.:			GB 1974-53309	19741210

AB Adding inorg. fillers in the form of an agglomerate obtained by treating with an **anionic** flocculant, such as **polyacrylamide** (I) [9003-05-8], and an **anionic** deflocculant, such as polyacrylates, polyphosphates, and silicates, to cellulose pulp slurry gave paper with high filler retention. Thus, 2000 ml aqueous slurry containing 1.2 g bleached

kraft pulp and 0.001 g polymers from a mixture of natural chalk 1000, Dispex

W [60182-20-9] deflocculant 5.0, Percol E24 [60182-38-9] (**anionic** I) 2.0, and deionized H<sub>2</sub>O 285.0 g gave a paper with 13.0% filler content and 7 km breaking length as compared with 7.5% filler retention in paper obtained by using **cationic** I.

L11 ANSWER 48 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1976:436939 CAPLUS

DOCUMENT NUMBER: 85:36939

TITLE: Treatment of sewage or sludge

INVENTOR(S): Horiguchi, Tadao; Miyata, Kazuo; Yamamoto, Kazumasa

PATENT ASSIGNEE(S): Kurita Water Industries, Ltd., Japan

SOURCE: Jpn. Tokkyo Koho, 4 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 50027821	B4	19750910	JP 1970-74902	19700828
PRIORITY APPLN. INFO.:			JP 1970-74902	19700828

AB Treated effluents and sludge are coagulated by an Fe compound or an Al compound and **cation-modified polyacrylamide** or poly(acrylic acid) ester. Thus, FeCl<sub>3</sub>·6H<sub>2</sub>O 7.9 and partially aminomethylated **polyacrylamide** [9003-05-8] (mol. weight 2 + 106) 0.3% (based on dry sludge) were added to anaerobically digested sludge with vigorous stirring, which was followed by slow stirring (1 min). The treated sludge was filtered. The filtration rate was faster and filter cake water content was less than when the compds. were used alone.

L11 ANSWER 49 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1976:76008 CAPLUS

DOCUMENT NUMBER: 84:76008

TITLE: Effect of high molecular weight **cationic** drainage aids on the electrokinetic properties of cellulose pulp

AUTHOR(S): Horn, Dieter; Melzer, Jaroslav

CORPORATE SOURCE: Hauptlab., BASF A.-G., Ludwigshafen, Fed. Rep. Ger.

SOURCE: Papier (Bingen, Germany) (1975), 29(12), 534-41

CODEN: PAERAY; ISSN: 0031-1340

DOCUMENT TYPE: Journal

LANGUAGE: German

AB The electrokinetic effectiveness of polymin SN (I) [9077-52-5] (**modified** polyethylenimine [9002-98-6]) and Sursolan K 12 L (II) [58252-39-4] (**modified polyacrylamide** [9003-05-8]) as drainage aids for bleached sulfite pulp with different fineness degree (Schopper-Riegler) was determined as a function of pH and aid dosing, and the effect of **anionic**, **cationic** and nonionic interfering compds., e.g. oxidized starch (III) [9005-25-8], etc., on zeta potential in pulp-aid systems was studied. The zeta potential of pulp with 55° Schopper-Riegler was -8 mV over a broad pH range. Higher dosing (.apprx.25 fold) was required for II at pH 5.0 to obtain electroneutrality of interfaces than for I. The presence of interfering compds. decreased the zeta potential to near zero without causing a decrease of Schopper-Riegler fineness. The presence of 5% **anionic -modified** III did not change the neg. value of the zeta potential within the measured ranges due to the slight **cationic** activity of II.

L11 ANSWER 50 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1976:8759 CAPLUS

DOCUMENT NUMBER: 84:8759

TITLE: Removal of suspended solids from waste water

INVENTOR(S): Kato, Motohiko; Fujita, Toshimichi; Watanabe, Shun

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50041354	A2	19750415	JP 1973-91588	19730814
JP 56027309	B4	19810624		
PRIORITY APPLN. INFO.:			JP 1973-91588	19730814

AB Suspended solids and(or) oils in waste waters are treated with aqueous polymerized

latex, water-soluble inorg. salts, and high-mol.-weight flocculents at pH >5.

Thus, 100 parts of a waste water from a polymer synthesis plant (COD 1570 ppm) containing suspended solids was mixed with 0.5 part

butadiene-styrene

copolymerized latex (butadiene 75, styrene 25%) at 25° and to this was added 5 parts of 1% Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> [10043-01-3]. The pH of the mixture was adjusted to 7.4 with Ca(OH)<sub>2</sub> and to this was added 5 ppm of an **anion-modified polyacrylamide** [9003-05-8].

Flocs were removed by filtration. The filtrate was colorless and its COD was 156 ppm.

L11 ANSWER 51 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1975:568219 CAPLUS

DOCUMENT NUMBER: 83:168219

TITLE: Waste water treatment with **anionic** polymers

INVENTOR(S): Yamamoto, Yasuo; Nakamura, Seiichi

PATENT ASSIGNEE(S): Toa Gosei Chemical Industry Co., Ltd., Japan



SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 50043758	A2	19750419	JP 1973-93191	19730820
PRIORITY APPLN. INFO.:			JP 1973-93191	19730820

AB **Cationic** high-mol.-weight electrolytes remaining in waste waters inhibit the activated sludge treatment. Addition of **anionic** high-mol.-weight electrolytes eliminates the substances that inhibit the activated sludge treatment. Thus, 0.3 ppm of a **cation-modified polyacrylamide** (I) (inhibitor) produced by treating **polyacrylamide** with Me<sub>2</sub>NH and HCHO was added to a brewery waste water containing 500 ppm BOD. An **anion-modified polyacrylamide** (II) was added to the waste water and the mixed solution aerated for 8 days. The treated water was allowed to stand to sep. the supernatant liquid and sludge. The BOD content of the supernatant liquid was 32.8 ppm and that of controls treated without I or II was 31.0 ppm, whereas that of waste water treated with I in the absence of II was 61.9 ppm.

L11 ANSWER 52 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1975:516343 CAPLUS  
 DOCUMENT NUMBER: 83:116343  
 TITLE: **Polyacrylamide** derivatives  
 INVENTOR(S): Tomlinson, Denise  
 PATENT ASSIGNEE(S): Hemlab A.-G., Switz.  
 SOURCE: Brit., 2 pp.  
 CODEN: BRXXAA  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1366672	A	19740911	GB 1971-6771	19720609
PRIORITY APPLN. INFO.:			GB 1971-6771	A 19720609

AB **Cationic modified polyacrylamides** were manufactured which were useful as flocculating agents in purification of water, effluent, and sewage and as ion exchangers. Thus, a suspension of **polyacrylamide** mol. weight >1,000,000 35.5, paraformaldehyde 5, and pyridine hydrochloride (C<sub>5</sub>H<sub>5</sub>N+H Cl-) 11.55 in pyridine 142 weight parts was stirred 12 hr at 70-5° to give fine, granular, slightly colored [CH<sub>2</sub>CH(CONHCH<sub>2</sub>N+C<sub>5</sub>H<sub>5</sub>) Cl-]<sub>n</sub> containing .apprx.10 weight % combined C<sub>5</sub>H<sub>5</sub>N+H Cl- and which absorbed .apprx.20 times its weight of H<sub>2</sub>O.

L11 ANSWER 53 OF 55 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1972:490336 CAPLUS

DOCUMENT NUMBER: 77:90336  
 TITLE: Paper and fiber finishing agents  
 INVENTOR(S): Yoshioka, Narihiko; Hashimoto, Takeshi; Tafuchi, Keisaburo  
 PATENT ASSIGNEE(S): Seiko Chemical Industry Co., Ltd.  
 SOURCE: Jpn. Tokkyo Koho, 4 pp.  
 CODEN: JAXXAD  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 46036485	B4	19711026	JP 1967-16350	19670317

AB An aqueous solution of **polyacrylamide** (I) [9003-05-8] prepared in the presence of N-glycidyl diethylenetriamine-itaconic acid copolyamide had better workability (lower viscosity) than com. available **anion-modified I** for papers. For example, a solution of 112 g diethylenetriamine and 124 g itaconic acid in 100 g water was freed from water and heated at 160.deg.-8.deg. for 3 hr to give 210 g of a polyamide.

A solution of 40 g of the above polyamide in 170 g water was neutralized, treated with 17 g epichlorohydrin at 80-5.deg. for 3 hr, neutralized and diluted to a 10% solution. A mixture of 270 g of a 10% aqueous acrylamide and 30 g of the above N-glycidyl polyamide solution was treated with 0.9 g of 10% aqueous (NH<sub>4</sub>)<sub>2</sub>S<sub>2</sub>O<sub>8</sub> and 0.9 g of 10% aqueous NaHSO<sub>3</sub>, and heated at 75.deg. for 1 hr to give a 10% solution. A kraft hand sheet containing 0.3% (solids) of the above composition (viscosity 600 cP) had burst strength 1.4 kg/cm<sup>2</sup>, compared with 1.2 kg/cm<sup>2</sup> for a paper treated with Star Gum A-10 (an **anion-modified I**, viscosity 20,000 cP).

L11 ANSWER 54 OF 55 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 2003:280509 BIOSIS  
 DOCUMENT NUMBER: PREV200300280509  
 TITLE: Soil formulation for resisting erosion.  
 AUTHOR(S): Harrison, Scott [Inventor, Reprint Author]  
 CORPORATE SOURCE: 8000 Jill Jean Ave., Bakersfield, CA, 93308, USA  
 PATENT INFORMATION: US 6562882 May 13, 2003  
 SOURCE: Official Gazette of the United States Patent and Trademark Office Patents, (May 13 2003) Vol. 1270, No. 2.  
<http://www.uspto.gov/web/menu/patdata.html>. e-file.  
 ISSN: 0098-1133 (ISSN print).

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 11 Jun 2003  
 Last Updated on STN: 11 Jun 2003

AB Compositions and method for resisting soil erosion. The compositions comprise either an aqueous mixture of a polymer mixed with an organic material or, alternatively, a polymer and organic material that can be mixed in water. The polymer preferably comprises **polyacrylamide** having **anionic functional groups** and the organic base comprises either cellulose, mulch and/or seed and mulch.

The

methods of the present invention comprise providing or forming an aqueous mixture of the compositions of the present invention and applying them to an area of land sought to be provided with soil erosion resistance.

L11 ANSWER 55 OF 55 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED.

on STN

ACCESSION NUMBER: 2004036686 EMBASE

TITLE: Adsorption of **cationic, anionic** and hydrophobically **modified polyacrylamides** on silica surfaces.

AUTHOR: Samoshina Y.; Diaz A.; Becker Y.; Nylander T.; Lindman B.

CORPORATE SOURCE: Y. Samoshina, Physical Chemistry 1, Lund University, P.O. Box 124, SE-221 00 Lund, Sweden.  
yulia.samoshina@fkem1.lu.se

SOURCE: Colloids and Surfaces A: Physicochemical and Engineering Aspects, (31 Dec 2003) 231/1-3 (195-205).

Refs: 36

ISSN: 0927-7757 CODEN: CPEAEH

COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article

FILE SEGMENT: 029 Clinical Biochemistry

LANGUAGE: English

SUMMARY LANGUAGE: English

AB The adsorption of **modified polyacrylamides (PAM)** at the silica surface has been studied by ellipsometry. To study the influence of the type of modification of the **polyacrylamide** on the adsorption behaviour, we have used **cationic, anionic** and hydrophobically **modified polyacrylamides** with varying charge density and degree of hydrophobisation. The adsorbed amount

and adsorbed layer thickness were obtained at a neutral pH and at a constant ionic strength ( $c(\text{KCl})=0.1\text{M}$ ). The effect of surfactant present during the polymerisation process has also been investigated.

**Cationic modified polyacrylamides** have been found to adsorb most strongly onto the silica surface and a large overcompensation of the surface charge has been observed in all cases.

For

**cationic modified polyacrylamides** having additional hydrophobic groups the adsorbed amount decreases with density of hydrophobic groups, and the adsorbed layer thickness is larger.

**Anionic modified polyacrylamides** also adsorb onto the negative silica surface, though the adsorbed amounts are small. The presence of the surfactant Tween 80 leads to an increase in the adsorbed amount for the polymers which adsorb weakly in the absence of

the

surfactant. However, for the polymers, which have already shown a good ability to adsorb on silica, the addition of surfactant has no

significant

effect on the adsorbed amount. .COPYRGHT. 2003 Elsevier B.V. All rights reserved.